Energy security over energy transition in the case of Yamal LNG, Russia: A neo-Gramscian analysis of energy power

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Abstract

Russia's energy security is considered to rest on hydrocarbon exports, as the country's economy and political regime depends on revenue generated in energy trade. Today, Russia faces a problem, as interests toward climate change mitigation and renewable energy have increased globally. Particularly the EU, Russia's primary gas trade partner, seeks to reduce fossil fuel consumption due to its climate policy targets and concerns over energy security. Via the Yamal LNG project, Russia begun to diversify its markets toward East Asia in 2017. The project is expected to spur energy infrastructure development in the Arctic region, as it ships liquefied natural gas (LNG) along the Northern Sea Route.

This study finds out how the stakeholders of the Yamal LNG project consider it to connect with the energy security of Russia, to which climate change mitigation poses a potential threat. Since securitization of energy is the result of a social process where political actors contest over the meanings of energy, the study also looks at whose interests the Yamal LNG project actually secures as "energy security", and how that concept becomes projected as a general national interest, instead of having energy transition among the top objectives of energy policy. Neo-Gramscian analytical approach and frame analysis are used to deliver results from a data consisting of 11 research interviews and 40 archival sources.

The stakeholders make sense of Yamal LNG's relation to energy security and energy transition through four frames, which reflect distinct interest groups. The stakeholders appeal on others by utilizing the frames discursively, as they strategically contest over the meanings of energy. Ultimately, a hegemonic group consisting of the Russian state, JSC Yamal LNG shareholders, industrial organizations, and fossil energy lobbies determines the meanings of Yamal LNG's production as general interests. Subordinate groups, including environmental NGOs and local indigenous residents, consent as they face combinations of discursive, organizational and material power. With the concession of others, the hegemonic group is able to project a "reality" that presents natural gas production as compatible with energy transition and climate change mitigation as an inferior interest to energy security. The Yamal LNG case shows that incumbent fossil energy regimes can effectively counter attempts to direct energy policy on low-carbon paths by pleading to security, which is a topic that research often neglects.

Keywords
Yamal LNG, energy security, energy transition, political power, Russia, Arctic

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Venäjän energiaturvallisuutta määrittää hiilivetyjen vienti. Maan kansantalous ja poliittinen johto ovat riippuvaisia energiakaupasta saatavista tuloista. Kiinnostus ilmastonmuutoksen hillintää ja uusiutuvaa energiaa kohtaan kansainvälisesti on kuitenkin alkanut haastaa Venäjän energiaturvallisuutta. Erityisesti EU, Venäjän tärkein kumppani energiakaupassa, pyrkii vähentämään fossiilisen energian kulutustaan ilmastopoliittisista ja energiaturvallisuuteensa liittyvistä syistä. Vuonna 2017 Venäjä ryhtyi siirtämään energiamarkkinoittensa painopistettä Itä-Aasian suuntaan arktisen Yamal LNG -kaasuhankkeen avulla. Yamal LNG:n tuottama nesteytetty maakaasu (LNG) kuljetetaan markkinoille Koillisväylää hyödyntäen, ja hankkeen odotetaan lisäävän energiainfrastruktuurin rakentamista Venäjän arktisella alueella.

Tämä tutkimus selvittää miten Yamal LNG -hankkeen sidosryhmät hahmottavat sen kytkeytyvän Venäjän energiaturvallisuuteen, jota ilmastonmuutoksen torjunta saattaa uhata. Energiaturvallisuus on kuitenkin sosiaalisten prosessien tuloksena rakentuva käsite, sillä energiaan liitettävistä merkityksistä, kuten turvallisuudesta ja ilmastoystävällisyydestä, käydään poliittista kamppailua. Siksi tutkimus selvittää myös keiden intressejä Yamal LNG -hankkeella todellisuudessa turvataan yleisenä ”energiaturvallisuutena”, ja minkä seurauksena kyseinen energiaturvallisuuden käsite esitetään energiapolitiikan kansallisena intressinä energiatransition ja ilmastonmuutoksen torjunnan sijaan. Tutkimuksen analyysia ohjaa uusgramscilainen lähestymistapa ja metodina on kehysanalyysi. Aineisto koostuu 11 tutkimushaastattelusta ja 40 arkistolähteestä.

Yamal LNG -hankkeen sidosryhmät jäsentävät hankkeen yhteyttä energiaturvallisuuteen ja energiatransitioon neljän poliittisia intressiryhmiä heijastelevan kehyksen avulla. He kamppailevat energian merkityksistä strategisesti vetoamalla näihin kehyksiin. Venäjän valtiosta, Yamal LNG:n osakkeenomistajista, teollisuusjärjestöistä ja lobbausorganisaatioista koostuva hegemoninen ryhmittymä kuitenkin viimekädessä määrää, mitä merkityksiä Yamal LNG -hankkeeseen yleisesti liitetään. Ympäristöjärjestöt, alkuperäiskansoihin kuuluvat paikalliset asukkaat ja muut alisteiset ryhmät myöntyvät hegemonisten toimijoiden edessä kohdatessaan diskursiivisia, organisatorisia ja materiaalisia vallan muotoja. Dominoidessaan Yamal LNG -hankkeen poliittista kenttää, hegemoninen ryhmittymä kykenee esittämään kilpaileville ryhmille uskottavan kuvauksen todellisuudesta, jossa maakaasun tuotanto esitetään energiatransition kanssa yhteensopivana ja jossa ilmastonmuutoksen torjunta näyttäytyy toissijaisena energiaturvallisuuteen liitettäviin tavoitteisiin nähden. Yamal LNG:n tapaus toimii yleisesimerkkinä tutkimuksessa usein hyljeksitystä aiheesta – siitä miten fossiiliseen energiaan sidoksissa olevat regiimit kykenevät torjumaan yrityksiä ohjata energiapolitiikkaa vähähiilisempään suuntaan vetoamalla yhteiskunnalliseen turvallisuuteen.

Avainsanat – Nyckelord
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”As we say that ‘gas is a bridge to a low-carbon future’, they’ve asked us that ‘what’s at the end of the bridge?’ [laughs nervously] *Well, that’s not quite clear.”*

– Senior Vice President of a state-owned gas company (A6)

Figure 1. *A Yamal LNG facility in arctic polar night, Sabetta, YNAO, Russia, December 2018. © Lauri Lähteenmäki*

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ABBREVIATIONS

bcm	Billion cubic meters
BRI	Belt and Road Initiative
CH_4	Methane
CNPC	China National Petroleum Corporation
CO_2	Carbon dioxide
CO_2e	Equivalent carbon dioxide
ESIA	Environmental and social impact assessment
EU	European Union
GDP	Gross domestic product
GECF	Gas Exporting Countries Forum
GHG	Greenhouse gas
IEA	International Energy Agency
IGO	Intergovernmental organization
IOC	International oil company
IPCC	Intergovernmental Panel on Climate Change
IPE	International political economy
IR	International relations
JSC	Joint-stock company
LNG	Liquefied natural gas
MLP	Multi-level perspective
NGO	Non-governmental organization
NSR	Northern Sea Route
RAIPON	Russian Association of Indigenous Peoples of the North
SOS	Security of supply
UNFCCC	United Nations Framework Convention on Climate Change
VAT	Value-added tax
WWF	World Wide Fund for Nature
YNAO	Yamalo-Nenets Autonomous Okrug

1. INTRODUCTION

Energy security and energy transition represent two sides of a coin in mainstream energy policy (Bridge, 2010: 521; Jewell et al., 2014: 743). While transitioning the energy system to a low-carbon one is needed to cut greenhouse gas (GHG) emissions (IPCC, 2018: 112; Urry, 2014: 16), energy security has traditionally focused on securing the fossil fuel-dominated energy base that keeps the industrial societies running (see Bridge, 2015: 330–331; Sovacool, 2011: 11; Urry, 2014: 12). However, interaction between the two contrary fields of policy remains lacking (Heubaum & Biermann, 2015: 229–230).

This study examines the problematic relationship of energy security and energy transition through the case of Yamal LNG. Yamal LNG is a liquefied natural gas (LNG) project, located onshore the arctic Kara Sea, in Sabetta, Yamalo-Nenets Autonomous Okrug (YNAO), Russia. The joint-stock company (JSC) Yamal LNG is owned by Novatek (50.1 %), TOTAL S.A. (20 %), CNPC (20 %), and the Silk Road Fund (9.9 %) (Yamal LNG, 2015a). With a development license reaching to 2045, JSC Yamal LNG extracts and liquefies natural gas in the 926 bcm Yuzhno-Tambeyskoye gas field (Yamal LNG, 2015c). It is the first private company in Russia to export natural gas to foreign customers, as it is expected to supply liquefied natural gas (LNG) primarily to Asian markets (Yamal LNG, 2015b) via its access to the Northern Searoute (NSR) (Yamal LNG, 2015a).

When Yamal LNG commissioned its first shipment of LNG in 2017 (Putin, 2017c), a long-term plan came true. The *Energy Strategy of Russia for the period up to 2030* (2010) had set an objective to develop LNG production, helping to reduce Russia's dependence on Europe by export diversification (Ministry of Energy of the Russian Federation, 2010: 23). As Russia's primary gas trade partner, the EU, seeks to cut fossil fuel consumption in order to reduce GHG emissions and dependence on foreign energy suppliers (Sharples, 2013: 688), Russia responds to the external threat that it considers climate policies and energy transition to pose (Orlov & Aaheim, 2017: 466; Sharples, 2013: 688–690; Tynkkynen, 2019: 115).

After all, Russia is a significant exporter of hydrocarbons. "*Energy extraction has become a means for survival for Russia*", Andreassen (2016: 78) claims. Depending on the price of oil, the tax revenue of oil and natural gas has accounted for 40–50 % of the country's federal budget (Simola & Solanko, 2017: 31). Yet, the question is not only about economics, but carries political and societal implications in a society that appears to be critically rooted in fossil energy production (see Tynkkynen, 2019: 1–

3). Energy entangles to political power, identity, and influence and status in international relations (Sharples, 2013: 686; Tynkkynen, 2019: 1). Energy companies take part in a wide range of corporate social responsibility activities and media production (see Tynkkynen, 2016: 377–378). This setting grounds a condition in which societal stability could be said to rest on hydrocarbons, as the country relies on its foreign energy markets (see Kratochvíl & Tichy, 2013: 391). Against the conventional understanding of energy security as an importer state-centric issue (see Proskuryakova, 2018: 203–204), Russia depends to a significant degree on the security of hydrocarbon exports, which defines its energy security concept (Sharples, 2013: 683).

However, prioritizing a concept of security over other significant energy-related global challenges (see Falkner, 2014: 192; Van de Graaf & Zelli, 2016: 52) is not the only path Russia could take. Despite decades of effort, positivist research has failed to deliver one comprehensive definition for energy security (Jewell et al., 2014: 743; Sovacool, 2011: 7). As a discourse, it seems that energy security is "*a concept considerably more concrete than the object to which it refers*" (Bridge, 2015: 330). Actors with different backgrounds and interests find quite unconverging meanings for security that is nested with the patterns of energy production and consumption (see Bridge, 2015: 328; Levy & Spicer, 2013: 663; Sovacool, 2011: 7).

Research has pointed out numerous cases in which actions taken in the name of energy security have constrained other objectives of energy policy, such as climate change mitigation (see Geels, 2014: 30; Haas, 2019: 69; Levy & Spicer, 2013: 663; Newell, 2018: 16–17). While Russia, consisting of a wide range of actors (Sharples, 2013: 684), could benefit from pursuing a low-carbon energy system (see Tynkkynen, 2019: 15–16), it has chosen to "secure" its energy in certain ways that benefit some over others (Bridge et al., 2018: 201). Previously, Russia has promoted fuel substitution with natural gas as the first step toward a low-carbon energy system in the EU. This remedy for the EU's will to reduce emissions, which has based on a framing of natural gas as the least GHG emission intensive fossil fuel (Sharples, 2013: 690), would allow Russia to sustain its gas exports. However, uncertainty and overwhelming complexity of empirical evidence characterizes the scientific support for such framing (see IPCC, 2014: 527). The total carbon footprint of fueling energy systems with natural gas "*continue*[s] *to be a black box*" (Tynkkynen, 2019: 19).

The rub of energy security lies in that it allows powerful actors to justify actions, bypassing deliberation about the overall purposes of policymaking (Bridge, 2015: 330; Bridge et al., 2018: 201). Thus, quite contrarily to consensual "management", energy policy constitutes a terrain of political

contestation for different actors, who pursue various and often disclosing policy objectives (Falkner, 2014: 192; Van de Graaf & Zelli, 2016: 52) – both challenging status quos and seeking to preserve their dominant positions in power (Geels, 2014: 25; Newell, 2018: 19–20). Such policies that then pass this terrain as "winners" and become accepted as legitimate "realities" beyond political deliberation (Szulecki, 2020: 2), are creations of strategic use of power (see Levy, 2008: 952). States, by no means, remain politically neutral: Scholars of international political economy (IPE) argue that governments tend to support corporate incumbent actors due to mutual dependencies (Geels, 2014: 26; Levy & Newell, 2002: 94).

The consequence of failing to understand the politics and power embedded in energy security is the risk of energy system lock-in to GHG emission intensive pathways (see Newell, 2018: 4). Particularly but not only in Russia, energy systems that are subject to securitization have attained significant economic and political investments (Phelan et al., 2013: 207) and are as well enforced with institutional legacies (Urry, 2014: 8–9). For this reason, some scholars have come to propose that truly transformative change, taking place at all system levels, is needed – as the inertia of a market-led transition, in which social relations are preserved, would be substantial (Fligstein, 2013: 46; Newell, 2018: 3–19; Sovacool, 2017: 21). Exceeding the global carbon budget poses a probable risk of catastrophic climate change (IPCC, 2018: 112) – a concern that the Paris Agreement seeks to prevent by "*holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels*" (United Nations, 2015a: 3).

To empirically analyze the complex political relationship of energy security and energy transition, which in part manifests through the Yamal LNG case, this study applies frame analysis and qualitative analysis based on the neo-Gramscian theoretical approach to 11 research interviews (conducted in 2018 and 2019) and 40 archival data sources (dated 2014–2019). Adoption of the neo-Gramscian approach allows focusing on the element of power, with a special attention to its strategic and structural dimensions (Levy & Scully, 2007: 983), which constitute key parts in the politics of the current world energy order (see Mitchell, 2009: 418–421; Newell, 2018: 3–4; Urry, 2014: 9). The following research questions are asked:

- How the stakeholders of Yamal LNG consider the project to connect with the energy security of Russia?

- Whose interests the Yamal LNG project actually secures as energy security and how that concept of energy security becomes projected as a general national interest, instead of having energy transition among the top objectives of energy policy?

The results reveal that four frames guide the interpretation of the Yamal LNG project's relation to energy security and energy transition. The Yamal LNG project supports the strategic interests of the Russian state and the JSC Yamal LNG consortium, who make up a dominant group in the case field. Strategically combining different types of power that emerge as a general "meaning of production" of the project, this group has established hegemony, which effectively obstructs the opposition of contesting actors. It addresses the political threat of energy transition by domesticating dangerous ideas and integrating them to the hegemonic agenda according to the group's own interests. With the Yamal LNG project, the hegemonic group has been able to actuate its interest, which serves the energy security of Russia as a major hydrocarbon producer.

This study structures as follows: After the introduction section, section 2., *Theoretical framework*, presents the essentially required conceptual tools for understanding and analyzing the relationship of energy security and energy transition in international context. Greater weight is given to frame theory and the neo-Gramscian approach, which are particularly relevant for the methodological design. Section 3., *Yamal LNG*, describes the case of this study in three dimensions that corresponds with the neo-Gramscian approach. Section 4., *Methodology*, describes the study's methodological design, data, analysis methods, and research ethics. Section 5., *Results*, first describes four frames drawn from the data with frame analysis and then, by applying the neo-Gramscian approach, critically examines strategic actions of all major stakeholders of the case. Due to the interpretative nature of the analysis methods used in this study, reasoning to support deductions is included in many parts of the results. However, theory, methodology, and the results are also examined in a separate *Discussion* section 6. Section 7., *Conclusions*, summarizes the results and sets agenda for potential future research.

2. THEORETICAL FRAMEWORK

This section explains the theoretical foundation of this study in critical theory (see Yin, 2016: 79–80). Section 2.1. presents the three main areas of energy policy at global level, which share theoretically exclusive relationships (see Falkner, 2014: 192). As they gather support from varying interest groups (see Van de Graaf & Zelli, 2016: 55–60) on a terrain that lacks one unifying governance institution, they become subjects to political contestation. The following section 2.2. presents common analytical perspectives for structuring energy politics. It proposes that energy politics particularly in the Yamal LNG case can be best understood through the concept of field that is highly analogous to the concept of historical bloc, found in Gramscian theory. Section 2.2.1. points out that discourse is a central element of sensemaking regarding energy issues (Isoaho & Karhunmaa, 2019: 930) that draws fields together. It also describes the concept of frame. Frames embed power, as they are used to both apprehend and communicate the world – that is central to the research methodology of this study. Then, section 2.2.2. argues that the neo-Gramscian approach is a fruitful analytical approach to examine energy politics and power, as it provides theoretical advantages to regime and organizational field theory. Finally, section 2.3. looks closer to one of the three main energy policy challenges – energy security (Falkner, 2014: 192; Van de Graaf & Zelli, 2016: 52). It describes how instrumental use of the concept allows incumbent actors to protect existing status quos of energy policy (Bridge, 2015: 330), which fortifies their positions in power and may lock-in energy systems to paths that continue to follow the current fossil energy-dominated energy order (see Newell, 2018: 4).

2.1. Politically embedded global energy challenges

Mainstream energy policy literature recognizes three significant global energy challenges, which should be addressed: mitigating climate change, ensuring energy security, and reducing energy poverty. These are often conceptualized as "the energy trilemma" (Falkner, 2014: 192; Van de Graaf & Zelli, 2016: 52). However, critical voices argue that issues related to energy cannot be encapsulated like this, as if they were only about energy itself. Instead, energy should be merely considered as a lens which refracts broader issues (see Chester, 2010: 893; Sovacool, 2011: 7; Van de Graaf & Zelli, 2016: 50–51). According to Falkner (2014: 192), "*the key question*" is that how the dimensions of the energy trilemma relate to each other – to what extent and under which conditions do they complement and conflict. Coining the meaning of "trilemma", some highlight that the dimensions are

mostly exclusionary – addressing one reduces chances to improve the others (see Bridge, 2015: 330; Sovacool, 2011: 7; Van de Graaf & Zelli, 2016: 53).

Addressing the issues would require collective action at transnational and regional levels, as state level energy policy has global impacts. However, no overarching governance institution for energy exists. Energy issues are governed by a scattered collection of organizations with varying interests and overlapping fields of operation, ranging from intergovernmental organizations (IGOs) to non-governmental organizations (NGOs) – let alone states and businesses, which play crucial roles in shaping global energy governance (Van de Graaf & Zelli, 2016: 55–60). History too, has left its imprint – for example, the whole area of energy governance has developed largely apart from climate governance (Falkner, 2014: 194).

Hence, the dispersed institutional structure of international energy governance (Newell, 2018: 14; Van de Graaf & Zelli, 2016: 58) makes energy a fit ground for political contestation. There are so-called "producer clubs" with their member states, such as the Gas Exporting Countries Forum (GECF) and Russia, who emphasize the importance of energy security (see Van de Graaf & Westphal, 2011: 22), while coexisting environmental NGOs and social movements advocate such objectives as increasing the share of renewable energy in the global energy mix and addressing historical inequalities related to energy production (see Burke & Stephens, 2018: 79).

Nonetheless, social forces that structure around fossil energy, in the modern age that is characterized by them, continue to shape power relations in energy governance (Urry, 2014: 9). Despite that energy can be nearly invisible to our everyday experience, energy systems and social systems are highly interlinked (Urry, 2014: 4). Societal patterns of interactions with energy systems constitute regimes, which "*comprise networks of actors, routines, principles, and rules, simultaneously constituting and disciplining their subjects*", again "*constraining and enabling patterns of behavior*" (Levy & Newell, 2002: 85). Incumbent actors possess relatively significant power to these regimes (Geels, 2014: 26), which radically shape social reality (see Urry, 2014: 9). Through constitutive power ("power to" instead of "power over") that spans politics, economics, cultural meanings, and discourses (Geels, 2014: 26) and manifests in ways that go beyond coercion (Balmaceda, 2018: 131), incumbents shape relationships between regimes (Balmaceda, 2018: 131). Resistance to destabilizing change is frequent (Geels, 2014: 26; Newell, 2018: 3), as their interest is to maintain advantageous positions compared to others (see Fligstein, 2013: 41–42). Thus, power is a central element in explaining the current

energy order, which indisputably has a political dimension (Balmaceda, 2018: 133; Mitchell, 2009: 201; Urry, 2014: 9).

2.2. Analytical perspectives on energy politics and power

Politics and power in fields that structure over energy issues are subject to research. Fields form "*around issues that bring together various field constituents with disparate purposes*" (Hoffman, 1999: 352). Fligstein (2013: 40) defines field as "*a social arena where something is at stake and actors come to engage in social action with other actors under a set of common understandings and with a set of resources that help define the social positions in the field*". In one sense, fields are also areas that collect dialogue and discussion (Hoffman, 1999: 352), which makes discourse a central element that constitutes fields (see Levy & Scully, 2007: 973).

Followingly, political contestation over the directions of energy policy can be conceptualized as a field. The current fossil fuel-dominated energy order represents a stabilized field, which reflects the interests of field incumbents who resists destabilizing change (see Fligstein, 2013: 41–42). Challengers, who pursue alternative energy orders, seek to destabilize the field either by reforming it through piecemeal change or developing entirely new fields (Fligstein, 2013: 40).

Nevertheless, it is more popular to conceptualize the political processes of energy transitions under regime theory, since an influential framework (see IPCC 2018: 148, 150) draws from it. The multi-level perspective (MLP) conceptualizes the dynamics of socio-technical transitions (see Geels, 2014: 23). Geels (2014: 23) suggests that "*destabilization and decline of fossil fuel-based regimes*" is often neglected, but "*equally important*" requirement for energy transition as stimulating innovation in environmentally sound technologies and alternative forms of social interaction. Creating space in the regime level is required to open "*windows of opportunity*" for niche innovations to enter the wider sociotechnical landscape (see Geels, 2014: 23).

However, the MLP and regime theory have faced critique of being limited. As a structuralist theory (Geels, 2014: 26), the MLP places collective actors broadly at the "regime level" (Newell, 2018: 2). Simultaneously, it disregards some aspects of power that constitute when ideologic and discursive, institutional, and material elements intertwine, as some of the elements situate outside the regime level – the locus of politics and power. The MLP comprehends some of these as "landscape" factors

(Newell, 2018: 10). Newell (2018: 2) argues that MLP is quite "*narrow*" framework for understanding change in the field of energy, as it "*continues to neglect questions of politics and power beyond specific management strategies and governance practices*". This precedes the notion of Haas (2019: 67), who argues that the MLP "*falls short as there is no theoretical basis within the framework that allows for it*" to analytically account politics and power. As a result, regimes often appear "*monolithic 'barriers to be overcome'*" (Geels, 2014: 23), even though the reality is more complex. Also, the embedded values in regime theory suggest that regime governance is generally "good" (Gale, 1998: 262–263), which sheds positive light on the role of the government as a regime manager. While this drives research focus on intra-state regimes (Newell, 2018: 2), it also disregards the potentially negative outcomes of governments establishing close relationships with incumbent actors (Geels, 2014: 26).

Inspired of this critique and long run efforts within multiple disciplines to understand stability and change in fields (Fligstein, 2013: 39–40), this study offers a neo-Gramscian theoretical perspective on power and political contestation regarding the relationship of energy security and energy transition in the Yamal LNG case, which I conceptualize as a field. While section 2.2.2. looks further to the topic of field dynamics from a neo-Gramscian perspective, the next section introduces the particularly important discursive dimension of this field (see Hoffman, 1999: 352).

2.2.1. Frames and discourses

Energy is subject to discursive debates, as views of what constitute the key issues regarding energy and how to solve them diverge highly between actors (Burke & Stephens, 2018: 80; Sovacool, 2011: 7; Van de Graaf & Zelli, 2016: 50). This also makes discourse a central element that draws actors together in debated energy related fields (Hoffman, 1999: 352). Thus, it is not surprising that such analytical approaches that Isoaho and Karhunmaa (2019) place under the category of "*discursive*", since they draw from frame theory and discourse analysis, have become increasingly common (Isoaho & Karhunmaa, 2019: 930).

Following the neo-Gramscian tradition, also this study understands discourse quite broadly as the dimension of ideas and sensemaking based on language (see Levy & Newell, 2002: 86–87). However, more commonly discourse is defined as "*a shared way of apprehending the world*" that is "*embedded*

in language". Discourse "*enables subscribers to interpret bits of information and put them together into coherent stories or accounts"* (Dryzek, 2013: 9–10).

Close to discourse is the concept of frame. However, frame theory pays arguably more emphasis on cognitive aspects (see Goffman, 1986: 21–22). A "*schemata of interpretation*" is a popular definition for frame, originally used by Erving Goffman (1986: 21), for whom frame analysis is generally attributed. However, Gregory Bateson's article *A Theory of Play and Fantasy* (1954) introduced the concept as a way to understand linguistic and metalinguistic messages (Bateson, 2000: 175). Ever since a variety of definitions and explanations have been provided. Often frames are explained as windows, which shape vision of the outer reality, as some parts of the observed subject are included and others excluded (Franzosi & Vicari, 2018: 394). Another allegory is to think about physical frames: "*if you were to reframe a picture, you would notice that the very elements previously emphasized – colors, patterns, composition – would subsequently be de-emphasized by a new frame*" (Kuypers, 2009: 181). Frames encourage to see subjects in certain ways, by making some aspects of reality more accessible than others (Kuypers, 2009: 181).

By selection and endorsement of subjects and contexts, frames define problems, causes and solutions, and make moral judgements (Franzosi & Vicari, 2018: 395; Kuypers, 2009: 182). Frames influence action, since solutions to problems are understood through framing (Snow & Benford, 1992: 137–138). Frames can be found in communicating actors (e.g. personal history), texts (e.g. rhetoric), receivers of communication (e.g. educational background), and larger cultural contexts (e.g. customs of communication) (Kuypers, 2009: 182). As frames between actors vary, differences in issue framing can lead to conflict (Huttunen, 2014: 65). Frames can also indicate distribution of power, as powerful actors can make their frames dominant (see Hajer & Laws, 2008: 8).

Discourses and frames may also "*institutionalize*" as organizational practices or common ways of reasoning (Hajer, 1993: 46). In such cases they resemble institutional logics (see Fligstein, 2013: 47) and hegemonic rationales (Levy & Newell, 2002: 86–87). However, neo-Gramscian theory often refers to the latter with the term "ideology" (Levy, 2008: 952; Levy & Newell, 2002: 86–87), which contains coherently structured theoretical assumptions about the social order, builds around discourses, and is politically motivated (Levy & Scully, 2007: 977). Followingly, energy policy is influenced by frames and discourses, which share elements from central political theories and ideologies (see Van de Graaf & Zelli, 2016: 50). Such worldviews or ways of sensemaking that

structure over frames and discourses diagnose problems, gives them specific values, and suggest action (see Franzosi & Vicari, 2018: 395; Van de Graaf & Zelli, 2016: 50).

2.2.2. Neo-Gramscian approach to energy politics and power

Levy and Scully (2007: 981) propose that stabilization in contested organizational fields that build around specific issues can be examined with the neo-Gramscian theoretical approach. The approach solves several theoretical issues posited against regime theory and the MLP by a number of IPE scholars (see Gale, 1998: 252–253; Haas, 2019: 67; Newell, 2018: 10), as it allows expanded examination of power, which spans beyond socio-technical regimes (see Geels, 2014: 23; Newell, 2018: 2). According to Levy and Newell (2002: 86), the approach "*promises considerable value in understanding the processes of contestation, resistance, and accommodation at the regime level, as well as the relationship between regimes and broader relations of power*", since it provides analytical tools to do so. In contrast to the MLP, it also leaves scope for actors (see Geels, 2014: 26; Haas, 2019: 67). In addition, the neo-Gramscian approach pays attention to non-state actors (see Levy & Newell, 2002: 85–86), dissociates from state-centricity by accounting networks and international relations (Gale, 1998: 277), and allows to consider the government both as transformative and a stabilizing actor in fields.[1]

The neo-Gramscian approach has its origin is in the writings of the Marxist philosopher and politician Antonio Gramsci. Likely because his works have been published only in the form of notebooks, as he was imprisoned during the fascist regime in 1920's Italy (Levy, 2008: 951), Gramscian thought has not quite gained the label of "theory" (Levy & Newell, 2002: 86). However, later it has been adapted to political science under IPE, which has resulted in a critical theory approach (see Phelan et al., 2013: 203). To distinguish further theoretical developments from the original writings of Gramsci, the prefix "neo" is used (Levy & Newell, 2002: 86). Different authors provide slightly varying approaches (see Cox, 1987; Gill, 1993).

Apart from other subjects of research in IPE, which studies international issues and combines perspectives from international relations (IR), economics, history, and geography – to name a few fields (O'Brien & Williams, 2010: 14), the neo-Gramscian approach has been used in studies of

[1] This is particularly visible in the concept of core alliance, which ties governments to incumbent businesses (see Geels, 2014: 26) while they also simultaneously govern socio-technical transitions through environmental policies.

energy and climate politics – particularly in energy transition research (see Dietz, 2019; Evans & Phelan, 2016; Haas, 2019; Newell, 2018). In this study, I adapt my neo-Gramscian theoretical approach from this field, basing it majorly on the works of Levy and Newell (2002), Levy (2008), Newell (2018), and Haas (2019).

In the neo-Gramscian approach, strategy and social dynamics are conceived very similarly to field theory (see Fligstein, 2013: 39). This has led Levy and Scully (2007) to seek for an integrated framework. The neo-Gramscian approach considers that society is a complex and dynamic system, in which structures exist and forces operate in three dimensions (Levy, 2008: 951): material, organizational (or institutional), and discursive (Levy & Newell, 2002: 87; Newell, 2018: 6). Beside these dimensions, the society can be divided into three different realms: the state, the civil society, and the economic realm (Levy, 2008: 951). This concept of societal structure grounds the neo-Gramscian understanding of a field (Levy & Scully, 2007: 973), in which actors fundamentally pursue their own interests (see Gramsci, 1999: 406).

The concept of hegemony brings the neo-Gramscian approach even closer to the organizational field theory. Hegemony is a condition in which a mutually shared rationale systematically benefits certain groups over others (Levy & Newell, 2002: 87; Newell, 2018: 3), granting advantage to groups whose interests are best served. Hegemony constitutes an emergent "historical bloc", which is a hierarchical structure (Levy, 2008: 951–952) resembling a stabile organizational field (Levy & Scully, 2007: 979). It consists of stakeholders, usually in groups, who have agency in the historical bloc and choose to consent to the shared rationale of the hegemony and thus reproduce it (Haas, 2019: 68), even though they may fundamentally have varying and disparate interests (Levy, 2008: 951–952; Levy & Newell, 2002: 87). Geels (2014: 26), who seeks to "*enrich*" the MLP by drawing "*insights*" from neo-Gramscian theory, describes that the most advantageous groups form a "core alliance". Core alliances often build upon mutual dependencies between state and corporate actors. While such collective coalitions strive to maintain hegemony (Geels, 2014: 26), subgroups, who are in the "subaltern", consent either actively or passively (Haas, 2019: 68).

The power of hegemony derives from coercion and ideological control of the subgroups (Haas, 2019: 67). According to Levy (2008: 951), the "*historical bloc sustains its position through the coercive authority of the state, dominance in the economic realm, and the consensual legitimacy of civil society*". In other words, the historical bloc is supported by the state, which provides institutional stability and other benefits (see Lindblom, 2001: 42). Adapting to state regulations provides authority

for the historical bloc. Simultaneously, the historical bloc possesses power over the state, as it dominates the economic realm, whose production and tax revenue the state depends on (Geels, 2014: 26). Economic domination is achieved with power that the historical bloc possesses, enforcing others to stick to the economic condition (e.g. keeping the state dependent on tax revenue generated by business actors and the civil society on public funding) (see Strange, 1987: 554–555). Since the civil society holds intellectual and moral leadership in a society, it projects hegemonic interests as general when it accommodates into the historical bloc. Thus, the civil society provides legitimacy for the hegemony (Levy & Newell, 2002: 86–87).

The mechanism that keeps the historical bloc integrated – and forces the subgroups to consent – functions through careful alignment of arrangements in the three societal dimensions (Levy, 2008: 952). These arrangements can be created and modified by deploying resources and various strategies, which utilize discursive, organizational, and material elements (Geels, 2014: 28).

In discursive strategies, specific frames and discourses can be adopted and used in new contexts to manipulate original meanings and reframe contexts (see Geels, 2014: 29). For example, environmentalist language can be utilized to portray harmful behavior as environmentally friendly (Levy & Newell, 2002: 96). With early introduction of new perspectives and linkages from a subject to another, actors utilize agenda-setting power to set frames in which subjects are discussed (Geels, 2014: 29). Building organizational alliances with discourse is also possible. This can be seen in discourse coalitions that policymakers and incumbent corporate actors tend to form, which organize around similar perceptions of reality and interlinked storylines (Hajer, 1993: 47).

Organizations and institutions are subject to strategic action, as arrangements in the very dimension can privilege certain actors over others. Geels (2014: 34) provides an example of how governance principles and exercised ideologies in the United Kingdom have favored fossil energy-based incumbent actors with dominant market positions, superior resources, and broad capabilities, by choosing a market-based regulatory framework for energy governance instead of "*picking winners*", as the role of the state is limited to "*rule-setting*" and "*coordination of activities occurs mainly via market competition*". Swyngedouw (2010: 225–228) argues that climate change mitigation is widely presented as a "*post-political*" techno-economic policy challenge for administrators and therefore conceals and obstructs imaginaries of alternative social orders and political contestation. Newell (2018: 11) posits that the desire for a market-led energy transition instead of more transformative alternatives has been enforced by state elites and financial actors. Under a neoliberal capitalist

political order, such settings may at first hand appear nonpolitical (see Geels, 2014: 34), but however, governance structures, ideology, and political cultures embody organizational power.[2] Conclusively, the ability to shape organization provides an actor organizational power (Geels, 2014: 34).

Material strategies base on shaping the material dimension according to an actor's strategic interests, which often supports arrangements in the other two dimensions (see Levy & Newell, 2002: 93). An example can be drawn from incumbent resistance to destabilizing change, which often relies on technical improvements in socio-technical regimes, such as product development to secure existing market positions (Levy & Newell, 2002: 96): Public discussion on the climate impacts of using natural gas focuses mostly on GHG emissions measured from the end-use in combustion – which may reflect emission inventory accounting by country in the UNFCCC (see United Nations, 2015b). However, a lifecycle perspective on the issue reveals high uncertainty on using natural gas to reduce GHG emissions by displacing other fossil fuels, as fugitive methane (CH_4) emissions released during the total value chain are counted in (see IPCC, 2014: 527). As a response to the debate, The Oil and Gas Climate Initiative (2018) – an industry organization, which has many of the largest oil and gas producer companies as members – has laid out targets of fugitive emission reduction[3], thus making natural gas a "better" tool for reducing GHG emissions.

However, the peculiarity of Gramscianism lays in the relational aspect of arrangements (Levy & Newell, 2002: 93). Alignments of discursive, organizational, and material elements constitute the subjective reality for societal actors, allowing for an ideology to emerge, which then legitimates the outcomes of the hegemonic system (Levy, 2008: 952). Such a projection of reality appears coherently argued, as it reflects in all dimensions. However, ideology that is adapted in consent does not necessarily reflect the fundamental values or interests that actors would express in an ideal situation. Nevertheless, when the hegemonic ideology properly mirrors the subgroups' perceptions of reality and interests that have shaped in this limited cognitive space, they choose to align with the polity (see Levy, 2008: 952). Progress driven by the hegemonic rationale then seems as a natural and universal trajectory (Levy, 2008: 952), even though the core-groups of the historical bloc hold ideological leadership (Haas, 2019: 67–68).

[2] Which reminds of a Foucauldian notion of power that reproduces through normative structures (see Foucault, 1995: 26).
[3] In detail, The Oil and Gas Climate Initiative (2018) states that "*OGCI companies set a target to reduce the collective average methane intensity of our aggregated upstream gas and oil operations to below 0.25% by 2025, with the ambition to achieve 0.20%.*" and "*our aim is to work towards near zero methane emissions from the full gas value chain*".

Thus, hegemony provides a perspective on why groups with conflicting interests may consent to a position where they have little influence and enjoy lesser benefits than others (Levy, 2008: 952). Established when a dynamic societal system sets into a relatively stable state (see Levy & Newell, 2002: 86–87), hegemony offers one explanation to a key-issue in organizational theory: Understanding the source of stability in organizations that lodge in fields (Fligstein, 2013: 39–40).

But furthermore, the neo-Gramscian approach also answers the question's counterpart – about understanding change in fields that accommodate organizations. However, Levy and Scully (2007: 977) suggest that the neo-Gramscian approach can contribute to organizational field theory with a strategic focus, since the latter has failed to provide a strategic perspective on how challengers could outmaneuver structural power within fields. This is based on the Gramscian notion that hegemonic ideology is never fully complete but remains fragmented. Challenging groups may destabilize hegemony in a superiorly resourced historical bloc via two long-term strategies that exploit this idea (Levy & Newell, 2002: 87). The first strategy, called as "war of position", builds up alternative cores of power rather than "*frontally assaults*" the hegemony. It coordinates across multiple locations "*to gain influence in the cultural institutions of civil society, develop organizational capacity, and to win new allies*" (Levy & Newell, 2002: 87–88). The second strategy of "passive revolution" is a reformist attempt to gradually alter the hegemony from above (Haas, 2019: 68; Levy & Newell, 2002: 88).

Naturally, historical blocs try to address opposition. This usually realizes through concession, in which challenging claims are adopted – but only partially. They are brought up in accordance to the interests of the historical bloc and integrated into its hegemonic agenda (Haas, 2019: 68; Levy & Newell, 2002: 88). This strategy of resistance, called as "trasformismo", lets to assimilate potentially dangerous ideas. They become domesticated parts of the hegemonic ideology, which in turn obstructs the formation of organized opposition to establish new cores of power (Cox, 1983: 166–167).

In the context of energy politics, trasformismo is a strategic attempt to manage contestation about the meanings and purposes of energy policy (Newell, 2018: 5). A multitude of actors, ranging from academic scholars to NGOs and social movements, demand transformative changes to energy regimes, suggesting a reconsideration of power relations nested with energy systems. This includes questions about the ownership of energy infrastructures (see Burke & Stephens, 2018: 79), means of fossil energy-dominated production (see Newell, 2018: 5), and political understandings of energy related risks (see Johansson, 2013: 203). In turn, trasformismo offers incumbent actors a strategy to address these calls without losing stability and transforming social hierarchies (Fligstein, 2013: 41).

It narrows down the debate about the quality of changes to modest transitions that base on technological improvements and government-imposed regulations (Newell, 2018: 5), excluding such options as a sweeping sustainability transformation with alterations at all societal levels (Sovacool, 2017: 21).

2.3. Incumbent energy security

Energy security is considered to be one of the three significant global energy challenges that make up the energy trilemma (Falkner, 2014: 192; Van de Graaf & Zelli, 2016: 52). However, energy security research has not been able to deliver one comprehensive definition for the concept (Jewell et al., 2014: 743; Sovacool, 2011: 7). Instead, more than dozens of definitions have been given (Sovacool, 2011: 3). Four energy security concepts dominate IR literature: neorealism, neoliberalism, constructivism, and international political economy (Proskuryakova, 2018: 205). Energy security has also been studied in other social sciences, economics, natural sciences, and engineering – all leaving their own imprints (Månsson, Johansson, & Nilsson, 2014: 9). According to Proskuryakova (2018: 204) a "*classic approach*" to conceptualizing energy security is to address four factors, originally proposed in Asia Pacific Energy Research Centre's (2007: 19–40) report. Kruyt, van Vuuren, de Vries, and Groenenberg (2009: 2167) have later adopted this to academia. The "four A's" are availability, accessibility, affordability, and acceptability – referring to 1) physical or geological existence of resources, 2) geopolitical elements, 3) economical elements, and 4) environmental and social elements (Kruyt et al., 2009: 2167).

However, instead of trying to determine what energy security is about, critical literature has rather focused on how it is used. Szulecki (2020: 2) states that "*there is a whole realm of questions related to the way energy security rhetoric can empower, frame, distract, or insulate certain stakeholders within energy governance with direct political implications*". Different kind of actions and policy interventions can be justified in the name of securing a society from threat, once energy becomes framed as a national security issue (Bridge et al., 2018: 201). Definitions of energy security and concerns after it have given governments and organizations justification for various policies and actions thorough history (see Luft & Korin, 2009: 7–8). Being one of the central areas of energy policy, energy security shapes the energy landscape (Bridge, 2015: 330).

Ironically, the multifaceted understandings of energy security may even promote actions that are contrary (Proskuryakova, 2018: 204). According to Chester (2010: 887), the concept of energy security has evolved in link to the post-World War II energy order, defined by the dominance of fossil fuels, nuclear energy, energy market liberalization, rapidly increasing demand for energy in developing countries, political instability, and large-scale natural phenomena. A significant share of the mainstream policy interest in energy security centers around powering the key sectors of the economy, such as the industry, transportation and housing (Bridge et al., 2018: 201). Hence, energy systems may appear as the objects of vulnerability for states. On the contrary, environmentalists and social justice activists may consider energy systems as objects that also generate insecurity (see Johansson, 2013: 200) – such as climate change and centralized political power (see Burke & Stephens, 2018: 79). Balmaceda (2018: 131) states that "*much of our current thinking about energy and politics can be traced back*" to "*the 1973–1974 oil crisis and embargo*", which left a fundamental impact on how energy and political power is understood (Balmaceda, 2018: 131; Bridge, 2015: 333). Accordingly, conservative energy security thinkers have rarely expanded their focus outside fossil fuels (Proskuryakova, 2018: 211), whereas a newer line of research has increasingly accounted recent energy trends and technology development (see Brown et al., 2014: 74). This as well has political implications: Should countries choose to increase hydrocarbon trade or reduce consumption and develop domestic production of renewable energy? Finally, like one major topic of discussion in the literature suggests, European countries have worried about the threat of Russia politically using its natural gas supply against dependent energy trade partners (Balmaceda, 2018: 132). This represents a threat to the security of supply (SOS) – a popular way to approach energy security, particularly in net-energy importer countries (see Bridge, 2015: 331–332; Johansson, 2013: 200–201; Sovacool, 2011: 2). Quite oppositely, the main energy security concerns for net-energy producers like Russia, which is one of the largest (Sharples, 2013: 683), are securing long-term demand and favorable contracts (Johansson, 2013: 202).

The fact that nearly everything is related to energy in the modern societal system (see Mitchell, 2009: 400; Urry, 2014: 8–9) makes energy security an interesting concept to study. This "*polysemic*" nature of the concept allows free interpretation that can be based on one's own interests (Sovacool, 2011: 7). According to Bridge (2015: 330), energy security is actually an "*empty signifier*" – a concept taken as more concrete than the object which it refers. Thus, on one hand, energy security is a socially embedded discursive construct. In the social process of securitization of energy, new objects of concern are produced under the frame of "energy security". The abstraction of "security" hides such qualitative aspects as reason, cost, and social relation (Bridge, 2015: 328–330): What is considered

as a satisfactory level of security? What are the costs of pursuing energy security? For whom energy is secured?

However, what makes energy security not only a discursive debate but also a politically relevant matter, is that energy systems are as well embedded in the material and organizational dimensions (see Newell, 2018: 17; Urry, 2014: 7). Since energy security policies base on particular understandings of "*good life*" (Bridge, 2015: 333) that has depoliticized (Szulecki, 2020: 2), they secure certain cultures of energy production and consumption and place certain energy technologies over others (see Urry, 2014: 8). Bridge (2015: 330) argues that energy security is much more constitutive than disclosing as a policy objective, as it seeks to preserve established norms and societal structures through the development of social resilience. This helps to maintain the current status quo of political–ecological relations (Bridge, 2015: 330) and makes energy security a rather different administrative logic compared to the other dimensions of the energy trilemma, which essentially require disclosure and administration of change to the energy regime (Cherp et al., 2011: 86).

Aristotle has reputedly said that "*he who controls the definition, controls the debate*" (Sovacool, 2011: 2). Defining energy security can be one instrument to secure advantageous incumbent positions in power, since energy systems, which are subject to strategic action (see Geels, 2014: 28–31; Mitchell, 2009: 409; Tynkkynen, 2016: 395; Urry, 2014: 9), are given special value accordingly. Conventional understandings of energy security provide incumbent actors both powerful rhetoric instruments and political "realities" against destabilizing change that other more disclosing energy policy objectives may require (Bridge, 2015: 333; Szulecki, 2020: 1). Of such, climate change mitigation is one, when it transforms power relations in energy related fields, challenging their fossil energy-based incumbency (Newell, 2018: 3–4).

This contestation over the meanings of energy security (Sovacool, 2011: 2–8) and its political consequences is a fine subject to apply the neo-Gramscian approach, which treats social reality as a "socially engineered" combination of discursive, organizational, and material elements (Levy, 2008: 952), which powerful actors are able to control (see Haas, 2019: 67–68). It is a fruitful tool for understanding political motivation to securitize energy, which stems from the need to protect incumbent positions in power – apart from more altruistic political goals.

3. YAMAL LNG

Regardless of Yamal LNG's strategic importance to the Russian state, the project has been researched very limitedly. This section describes the case and its most important stakeholders by explaining their relations to the project, basing on literature and stakeholder documents. Adapting the neo-Gramscian understanding of societal structure in three realms – state, economy, and civil society (Levy, 2008: 951), I describe the Yamal LNG case from these three viewpoints. The first section 3.1., *State realm*, includes two subsections: 3.1.1., *Energy security interests in LNG*, and 3.1.2., *Yamal LNG and energy-related state interests in the Arctic region*. In these I discuss the context of Russia's energy strategy in a changing global energy landscape with the emergence of environmental policies and LNG production – and increasing climate change and energy security interest in the Arctic region. Section 3.2., *Economic realm*, shortly describes interests and roles of different corporate and business actors in developing the Yamal LNG project. Finally, section 3.3., *Civil society realm*, with two subsections as well, describes civil society actors', such as environmental NGOs' and local residents', relations to the Yamal LNG project.

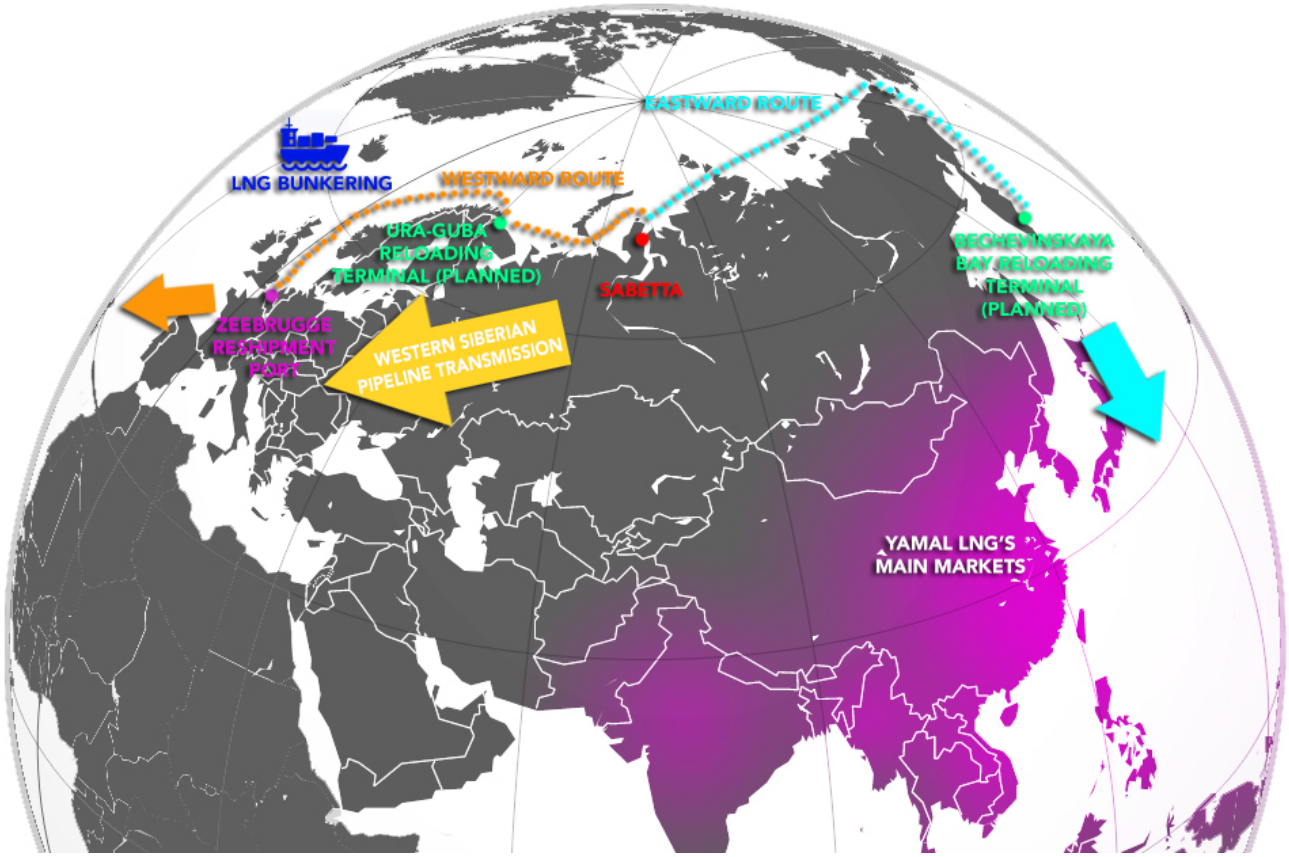

Figure 2. *Geographical distribution of the Yamal LNG value chain. The upstream production site Sabetta, eastward and westward routes on the NSR, reloading and reshipment terminals, and primary downstream sites of LNG consumption are illustrated. Additionally, Russia's pipeline gas flow from other major production sites in Western Siberia is shown with a yellow arrow. © Lauri Lähteenmäki*

Generally referred as Sabetta, the production site of the Yamal LNG project is located in Northeastern Yamal Peninsula on the Yuzhno-Tambeyskoye gas field, where natural gas is extracted and liquefied (Yamal LNG, 2015c). Sabetta has a seaport onshore the Gulf of Ob (Yamal LNG, 2015e), which Yamal LNG uses to export LNG and natural gas condensate (Yamal LNG, 2015b). Whereas Sabetta is a distinct locality, the project's LNG logistics, however, cross international state borders. During the summer season (July–December), LNG is shipped eastward along the NSR. During the winter season a route between Sabetta and Western Europe is utilized (Sovcomflot, 2019; Yamal LNG, 2015b). Two terminals for reloading cargo between Yamal LNG's ARC-7 ice class (in Russian Maritime Register of Shipping) LNG tankers and conventional LNG tankers have been planned into Bechevinskaya Bay in Kamchatka Krai and Ura-Guba in Murmansk Oblast (The Barents Observer, 2019). In 2015, a 20-year contract was established for LNG reloading in the port of Zeebrugge, Belgium, which operates a natural gas hub (Yamal LNG, 2015f). Finally, the end-use product is consumed in sites far away from the upstream: Yamal LNG's primary market is the Asia–Pacific region (see Yamal LNG, 2015a, 2015b). A share of Yamal LNG's produce also goes to marine vessel LNG bunkering, which the Zeebrugge terminal announces to offer (Yamal LNG, 2015f). Gritsenko and Efimova (2017: 10) state that a similar service is likely to become developed in the Sabetta seaport as well. *Figure 2* illustrates the geographical distribution of the Yamal LNG value chain.

3.1. State realm

3.1.1. Energy security interests in LNG

The Energy Strategy of Russia up to 2030 (Ministry of Energy of the Russian Federation, 2010: 23) targets to diversify Russia's energy export structure. The strategy assesses that an ongoing restructuring of the world energy markets, economic growth in developing countries, and intensification of competition will reshape the global energy landscape. This should result in increasing uncertainty and risks, caused by oil price dynamics, impacts associated with the financial crisis of 2008, energy supply shortages, and "*multiple-valued prospects for concluding international agreements on environmental policy and climate change*" (Ministry of Energy of the Russian Federation, 2010: 21).

According to the strategy, Europe and the states of the Commonwealth of Independent States will remain as the main markets for Russia's energy exports (Ministry of Energy of the Russian

Federation, 2010: 22–23). However, the EU is trying to reduce its fossil fuels consumption and dependence on imported energy resources (Kratochvíl & Tichy, 2013: 392; Sharples, 2013: 688). The EU's European Energy Security Strategy (European Commission, 2014: 7–15) not only seeks to increase energy efficiency and domestic energy production – particularly renewable, but also considers LNG as a potential source for import diversification.

Southeast from Russia, demand for natural gas is however expected to grow. IEA (2018b: 184) notes that in Asian emerging economies "*there appears to be plenty of room for future growth*" in gas consumption: Natural gas has a 10 % share in the region's energy mix, whereas the global average is 22 %. According to IEA (2018b: 184), gas is "*good fit … for a population that is increasingly concerned about qualitative aspects of economic development, including air quality*". Because of this, for example, the government of China promotes a coal-to-gas switch policy (IEA, 2018: 184). Additionally, gas demand in Japan has grown since the 2011 Fukushima disaster led Japan to abolish much of its nuclear energy production capacity (Bridge & Bradshaw, 2017: 228).

Not surprisingly, Russia seeks to increase natural gas export to the Asia–Pacific region (Ministry of Energy of the Russian Federation, 2010: 23). LNG seems to be the most viable option for this, highlighted in the Energy Strategy of Russia up to 2030 (Ministry of Energy of the Russian Federation, 2010: 23). As the Arctic region and the federal subjects surrounding the northern parts of Ural are the most important regions for natural gas production in Russia (see Tatarkin & Loginov, 2015: 25–30), a move to direct gas flow eastward with a pipeline would require building continent crossing infrastructure. For a reference, the distance between Salekhard, YNAO, and Beijing, China, is 4 248 km.

Beside geography, Russia's will for developing LNG resonates with a trend in global gas trade: Already by 2025, the volume of LNG should surpass pipeline gas in global natural gas trade (IEA, 2018: 174). Since LNG is increasingly traded in spot-markets and with short-term contracts, similar market structure to oil is predicted to build up (Bridge & Bradshaw, 2017: 227). In emerging Asian economies, LNG should have a significant share in the future gas consumption. The IEA (2018b: 190) estimates that 80 % of the growth in global LNG imports up to 2040 takes place in those, of which nearly half in China. Therefore, it is not a surprise that the Yamal LNG project targets primarily markets in the Asia–Pacific region (Yamal LNG, 2015b).

Whereas this structural change in the global gas market influences producers to rethink strategy, it also raises the question of SOS for importers. In Asia, where gas supply quickly finds its consumers, the government of China has viewed overseas investment as one the most important areas to address energy security. This has been led by national oil companies – one being the China National Petroleum Corporation (CNPC) (Wu, 2014: 7). The concern over SOS is well acknowledged by Russia, who put energy security on G8's agenda during its presidency in 2006 (Van de Graaf & Westphal, 2011: 22). In 2014, Russian Novatek established "*mutually beneficial cooperation*" with CNPC with a 20 year supply contract of three million tons of LNG per year (Yamal LNG, 2014a). However, critics have argued that the economic sanctions imposed over Russia by the United States and the EU due to the Ukrainian conflict explains why Chinese actors have such large stakes in the Yamal LNG project. The sanctions have limited financing for some Russian companies and the operations of US-based IOCs in Russia, which were as well barred from exporting upstream oil and gas technologies (see Bertelsen & Gallucci, 2016: 242; Soroka, 2016: 373–375).

3.1.2. Yamal LNG and energy-related state interests in the Arctic region

Situated in the Arctic, the Yamal LNG project is related to increased geopolitical interest in the region (see Andreassen, 2016: 78; Bertelsen & Gallucci, 2016: 240). The Artic region is known to hold significant hydrocarbon resources. YNAO alone withholds the largest natural gas reserves of any region in Russia (Tatarkin & Loginov, 2015: 30). The Russian Arctic region also retains considerable quantities of oil – approximately more than half in offshore deposits (see Zolotukhin & Gavrilov, 2011: 901). However, these have remained largely undeveloped, for which challenging environmental conditions have been a contributing reason (Stephenson & Agnew, 2016: 523). Nevertheless, increasing climate change grants potential for hydrocarbon development (Harsem, Eide, & Heen, 2011: 8039), as Arctic amplification results in about twice higher than average rate of warming in the region (IPCC, 2013: 1062). In this sense, the Arctic has been framed as a new "*extractive frontier*", where different states wish to establish control (see Bertelsen & Gallucci, 2016: 244; Harsem, Eide, & Heen, 2011: 8038; Sidortsov, 2019: 135; Soroka, 2016: 362) – an imaginary resembling the European discovery of the Americas (see Stephenson & Agnew, 2016: 565).

Sergunin and Konyshev (2016: 27) describe "*access to natural resources*" as Russia's "*first and foremost*" attraction toward the Arctic region. In order to sustain current production levels of natural gas and oil, Russia needs to increase production in the Arctic (Harsem, Eide, & Heen, 2011: 8042).

Moreover, Andreassen (2016: 83) encapsulates the role of Arctic mineral reserves as "*crucial*" for developing the Russian economy – which reflects an idea of energy-income fueled modernization (see Tynkkynen, 2016: 390). According to Sidortsov (2019: 134), "*under the Constitution of the Russian Federation management of natural resources is de jure under joint federal and provincial jurisdiction, de facto it is near complete control of the federal government*". Bertelsen and Gallucci (2016: 241) claim that also China's general interest in the region is the supply of energy and raw materials.

However, untapping Arctic energy resources is a demanding task in a hinterland where infrastructure is limited (see Soroka, 2016: 363). While it needs to be improved in order to utilize the energy resource potential of the region (Government of the Russian Federation, 2013: 3), this has also implications on regional development and security. For example, hinterland connectivity, search and rescue services, as well as military capabilities to protect shipping lanes are needed (Andreassen, 2016: 83; Soroka, 2016: 362). Infrastructure projects, such as constructing deep-water seaports, pipelines, and railway connections, thus help to establish potential economic conditions and administrative control over the region (see Soroka, 2016: 362–363).

In addition to energy development, climate change offers prospects for also marine traffic in the Arctic region, as the sea ice cover diminishes (Holmes, McCauley, & Hanley, 2018: 25). Onshore the Ob Bay of the Kara Sea, the Yamal LNG project is in close distance to the NSR. The route itself is the shortest shipping route between Europe and East Asia (Sergunin & Konyshev, 2016: 28), and thus has drawn interests of various actors.

For China, the NSR generally represents a route to west that avoids passing through the Malacca strait. Nearly 80 % of China's oil imports travel through the chokepoint, which appears to be a weak spot in the country's energy security (Kennedy, 2011: 126). Recently China, whose export-driven economy has relied on sea-based trade, has put much strategic emphasis into the development of its trade connections. This is most apparent with the Belt and Road Initiative (BRI) (Bertelsen & Gallucci, 2016: 241) – a program to increase regional connectivity to China by infrastructure development (Chung, 2017: 1). In 2016, the Silk Road Fund acquired a 9.9 % stake of the Yamal LNG project (Novatek, 2016), which obviously associated the project with the Ice Silk Road Initiative under the BRI (Bertelsen & Gallucci, 2016: 244). The fund (2019) describes its purpose "*mainly*" as a provider of "*investment and financing support for trade and economic cooperation and connectivity*

under the framework of the [BRI]". However, some say that China is only limitedly interested in the NSR (Bertelsen & Gallucci, 2016: 25; Sergunin & Konyshev, 2016: 85).

Russia seeks to maintain and improve control over the route, as it locates inside the exclusive economic zone of the country (Sergunin & Konyshev, 2016: 88). The Yamal LNG project supports this interest at least in two ways: First, the project financed – although only partially – the Sabetta seaport in the northern coast of Russia, where transport infrastructure is very limited (see Gritsenko & Efimova, 2017: 12; Sergunin & Konyshev, 2016: 84) and welcomed by the state due to its regional development plans (Sergunin & Konyshev, 2016: 28). The YNAO regional government has provided both financial and rhetorical support for Sabetta and the Yamal LNG project (Gritsenko & Efimova, 2017: 13). Secondly, the Yamal LNG project has brought traffic and maintenance support to the NSR, which has not yet managed to attain much international traffic (see Sergunin & Konyshev, 2016: 86–87; Stephenson & Agnew, 2016: 572), but is a core Arctic interest for Russia (Sergunin & Konyshev, 2016: 28–29). Sergunin and Konyshev (2016: 82) claim that the cost of maintaining the route is "*extremely high*". ARC-7 class LNG tankers – able to travel the route without icebreaker support – utilize the route during the summer period (Yamal LNG, 2015b).

While much of Russia's Arctic interests are related to the development of hydrocarbon resources and their safe transport via the NSR – among other objectives (Sergunin & Konyshev, 2016: 27–33), the imaginary dimension of Arctic development cannot be ignored either (Soroka, 2016: 370). Sergunin and Konyshev (2016: 35) describe that the Arctic "*has become an 'existential question' for the Russian intellectual and political elites*". The region represents a sphere where Russia can demonstrate its capabilities and geopolitical influence, when it is otherwise constrained with an inability to set agenda for dialogue with Western and other post-Soviet nations. Hence, some associate Arctic development to the "restoration" of Russia's great power status after the collapse of the Soviet Union (Sergunin & Konyshev, 2016: 35–37). This also links Arctic development, which energy leads, to the idea of Russia as an "energy superpower": A belief that Russia's "revival" to economic prosperity and to world power should occur through the development of its energy sector (Bouzarovski & Bassin, 2011: 788).

Consequently, Sidortsov (2019: 135) states that the Russian government saw "*strong reasons*" for proceeding with the Yamal LNG project, which precedes similar projects planned and under construction in the Arctic region of Russia. Such include the neighboring Gydan Peninsula's Arctic LNG 2, which too is implemented in international cooperation by Novatek and TOTAL S.A. with

Chinese partners, CNPC and China National Offshore Oil Corporation, and Japanese Mitsui-Jogmec consortium and Japan Arctic LNG (TOTAL, 2019).

3.2. Economic realm

Figure 3. *LNG tanker Yuriu Kuchiev docked in the Arctech Helsinki shipyard, Helsinki, Finland, 24.7.2019. © Lauri Lähteenmäki*

In 2011, the private Russian gas company Novatek announced that it holds 100 % of the shares of JSC Yamal LNG (Novatek, 2011b). Prior to this, Novatek had cooperated with Gazprom in order to implement a pilot LNG production plant based on the resources of the Yuzhno-Tambeyskoye natural gas field (Novatek, 2010). Novatek (2010) points out that the companies had interest in diversifying Russia's natural gas markets and that an ice-class tanker fleet was to be built.

However, the deal with the state-owned company Gazprom came short. Even before the Yamal LNG project, Novatek had proven that it can outperform Gazprom in terms of efficiency and profit (Lunden, Fjaertoft, Overland, & Prachakova, 2013: 666). Novatek signed a memorandum with TOTAL S.A. to develop strategic partnership (Novatek, 2011c) and so the international oil and gas "supermajor" (Stephenson & Agnew, 2016: 562), originating from France, soon acquired a 20 % stake in Yamal LNG (Novatek, 2011a). Since then, not much have been heard of Gazprom in the project.

A leading reason for dropping Gazprom might have been that Russian energy companies have lacked production technology required for ramping up new production in the Arctic area (Harsem et al., 2011: 8042). Contrarily, most advanced technology in the oil and gas sector is generally considered to lay in the hands of international oil companies (IOCs) (Stephenson & Agnew, 2016: 566). TOTAL

S.A. pledged to offer its "*expertise*" (Novatek, 2013) and, according to Novatek (2011d), "*experience in implementing complex oil and gas projects*" with "*presence in LNG markets*" to Yamal LNG. The project helps to renew TOTAL S.A.'s resource portfolio, as its production of mature resources decreases elsewhere (see Novatek, 2013a; Stephenson & Agnew, 2016: 566). According to the company's upstream President, TOTAL S.A.'s participation "*increases [TOTAL S.A.'s] presence in a high potential region of Russia in terms of gas resources*" (Novatek, 2013).

Today, Yamal LNG is a joint-venture LNG project operated by JSC Yamal LNG. It has four shareholders: Novatek, TOTAL S.A., CNPC and the Silk Road Fund, with shares of 50.1 %, 20 %, 20 % and 9.9 % (Yamal LNG, 2015a). Yamal LNG (2015b) announces that "*virtually all*" of its LNG production capacity will be supplied under long-term contracts. Its primary market is the Asia–Pacific region (see Yamal LNG, 2015a, 2015b).

As argued in the previous section (3.1.2.), the Russian decisionmakers have been supportive toward the Yamal LNG project (see Gritsenko & Efimova, 2017: 13; Sidortsov, 2019: 135; Soroka, 2016: 365; Stephenson & Agnew, 2016: 571): President Putin had been positive for long about TOTAL S.A., which serves as a link between Franco–Russian relations (see Overland, Godzimirski, Lunden, & Fjaertoft, 2012: 145). Also Novatek's major shareholder and executive Gennady Timchenko is "*widely considered Putin's protégé*", Overland, Godzimirski, Lunden, and Fjaertoft (2012: 145) claim. This potentially paved the way for issuing Yamal LNG a license for exporting LNG. Until this, Gazprom had a gas export monopoly in Russia (Stephenson & Agnew, 2016: 571).

Yamal LNG was also granted a favorable tax regime: It is exempted from Mineral Extraction Tax, export duties, and VAT for some foreign built equipment (Yamal LNG, 2014c). In addition, the National Welfare Fund of Russia financed the project with 150 billion RUB (Yamal LNG, 2016). Construction of the Sabetta seaport, used by Yamal LNG, was also primarily funded with public funds (see Gritsenko & Efimova, 2017: 12).

In 2014, the United States imposed economic sanctions on Novatek (Novatek, 2019: 62). This caused uncertainty about securing funding for the Yamal LNG project. However, the Russian government came in to help by negotiating with China (Soroka, 2016: 364–365) – and the project acquired funding from two Chinese banks (Yamal LNG, 2016).

Construction and planning of the Yamal LNG project has required a great number of contractors. To name some of the most essential, supplying the LNG facility was contracted to TechnipFMC, JGC, and Chiyoda (TechnipFMC, 2018). Siemens has contributed gas-to-power technologies in the project (see Novatek, 2018). Daewoo Shipbuilding & Marine Engineering was contracted to build 16 LNG tankers (Yamal LNG, 2013a). Designing the tankers, as well as six support ice breakers, was contracted to Aker Arctic, which is primarily owned by the state of Finland (see Aker Arctic, 2014: 4–10). See *Figure 3* for reference of the Yamal LNG tanker Yuriu Kuchiev. Sovcomflot (2017) states that in addition to Sovcomflot, the rest of the tankers "*were ordered by Mitsui OSK Lines, Teekay and Dynagas LNG Partners, together with their Chinese state-owned shipping partners*". Belgian contractor Jan de Nul Group dredged the port basin, the access channel, and the sea channel for the Sabetta seaport (Jan de Nul Group, 2016).

3.3. Civil society realm

Gramscian theory considers the civil society as the realm within hegemony is secured with ideological compliance. It is also the key site of political contestation (Levy & Newell, 2002: 87). In this section I examine the realm of civil society, where contestation has occurred in the Yamal LNG case. First, I describe the local relevance of the Yamal LNG project. Secondly, I focus on NGOs in national and international dimensions – as Levy and Newell (2002: 90) suggest that NGOs are key actors for ensuring and opposing hegemony.

3.3.1. Local indigenous population, gas extraction, and climate change

With about 700,000 reindeer (*Rangifer* spp.)[4], YNAO is the world's largest reindeer herding region (Kumpula, Forbes, & Stammler, 2006: 20). In 2016, the head count in the Yamal Peninsula alone was about 254,020 (Schwalbe, 2017: 6). Of the more than 11,000 indigenous inhabitants in the peninsula about 6,000 practice reindeer nomadism. Significant majority of this population are Nenets (Yamal LNG, 2015d). Other indigenous groups in YNAO include Komi, Khanty, and Selkup (Environ, 2013: 58; Kumpula et al., 2006: 20).

[4] According to The Barents Observer (2016), who refers to "*the authorities in the Yamal-Nenets Autonomous Okrug*". In 2010, reindeer headcount was 665,200 (Federal State Statistic Service, 2011).

Traditional indigenous land use has taken place in parts of the license area of Yamal LNG: According to Yamal LNG's Environmental and Social Impact Assessment (ESIA) (Yamal LNG, 2014b: 8/87), 56 families regularly migrate within the project's license area. Other herder groups from higher north also traverse through it annually. A number of sacred sites locate along their routes. Two river estuaries in the area are as well used for fishing.

Apart the ESIA, an ethnographic field research conducted for a German NGO, The Institute for Ecology and Action Anthropology (Schwalbe, 2017: 14–15), reports considerable social impacts from the project: As it is forbidden and punishable to enter the license area, local population uses it illegally. Hundreds of hectares of pasture land have degraded. Infrastructure crossovers aiding in reindeer migration are considered limited and one sacred site has been destroyed under a crossover. The number of families residing in Tambey, a multi-purpose trading post (or "factoria") within the license area (Environ, 2013: 55), has reduced from fifteen to only three (Schwalbe, 2017: 15).

Schwalbe's (2017) research report also questions the ESIA's (Yamal LNG, 2014b: 8/67) assessment of fishing as a non-subsistence activity, which is claimed to take place only during autumns by "*a few tens of individuals*". However, this estimate is asserted uncertain. The report (Schwalbe, 2017: 13) comments that "*fish is one of the most important components of the indigenous peoples' diet*" and that it is commonly used like currency in exchange. According to Forbes et al. (2009: 4), during summer, reindeer herders rely mainly on fish caught from rivers and lakes. A report by WWF Russia (see Ametistova & Knizhnikov, 2016: 19) also reveals that "*representatives of local population*" had been concerned about the project's impact on fish resources. An anonymous stakeholder (A5), who I interviewed, confirms that this was a representative of the local Nenets reindeer herders.

Ecosystem degradation and fragmentation of the tundra landscape accompanied with rapidly increasing climate change in the Arctic region (see IPCC, 2013: 1062) poses a threat for the resilience of reindeer herding-based indigenous culture (Forbes et al., 2009: 1; Kumpula et al., 2006: 18). By "nibbling" away usable land, intensifying industrial land use reduces the indigenous population's flexibility to absorb external shocks, such as the impacts of climate change. Nenets report that the frequency of unpredictable weather events has increased, which has led to episodes of significant reindeer loss. Thus, intensifying industrial land use and climate change synergistically causes change in the socio-ecological system of the Yamal Peninsula (Forbes et al., 2009: 3–6).

Regarding the above, I consider the indigenous population affected by the Yamal LNG project as a stakeholder group in this case. However, according to Schwalbe (2017: 17), the YNAO administration considers that the root of the problem with land use is the outgrown size of the reindeer population, overgrazing pastures.

Figure 4. *Reindeer herd of Khanty owners, north of Salekhard, YNAO, 2018 © Lauri Lähteenmäki*

3.3.2. Internationally linked NGOs

WWF Russia (2019) announces in its official website that "*climate and energy*" are "*among the main areas of WWF Russia's work*". However, like other NGOs in Russia, it has approached climate and energy issues only very limitedly in recent years. According to Henry (2010: 768), for Russian environmentalists it is hard to influence the oil and gas sector, which is important for the state. Russia's climate policy is not much more fertile ground for political activism either. This has been proven already with Russia's motivation toward the Kyoto Protocol (see United Nations, 1998), even after extensive campaigning done by Greenpeace, WWF, and other Russia-based environmental NGOs (see Henry, 2010: 770).

WWF Russia acknowledges fugitive methane emissions related to the use of LNG (see Ametistova & Knizhnikov, 2016: 24; Klimentyev, Knizhnikov, & Grigoryev, 2017: 58). It (Ametistova & Knizhnikov, 2016: 15) also suggests that producing unnecessary GHG emissions (by gas flaring and thawing permafrost) should be avoided in LNG project development. Greenpeace sides with the indigenous population in the Yamal Peninsula by defending Nenets reindeer herding against the impacts of climate change (Vasilieva, 2016). Also, Bellona – an environmental organization with two

offices in Russia, which is mainly dealing with nuclear safety, industrial pollution, renewable energy and legal aid to environmental activists (see Bellona, n.d.) – has released an article regarding Yamal LNG, in which it considers climate change as enabling and threatening factor for the project (see Bellona, 2019).

The above summarizes Russian NGOs' involvement with the Yamal LNG project that is based on climate activism. Other than that, Russian NGOs focus on other issues. Nevertheless, WWF Russia and Greenpeace have criticized Yamal LNG of environmental damage.

In 2016, WWF Russia published a report titled as *Environmental Aspects of Arctic LNG Projects Development* (Ametistova & Knizhnikov, 2016). It comments the environmental impacts of the whole LNG sector in Russia and pays much attention to the Yamal LNG project. Particular focus is given to dredging operations conducted in the Ob Bay, which were needed for construction of the deep-water port of Sabetta (Gritsenko & Efimova, 2017: 15). The report comments the water ecosystem and hydrology impacts of the dredging operations and states that "*such scale of bottom dredging works is unprecedented for the Arctic region*". According to the report, dredged sediments were also disposed to the Gulf of Ob, against the best environmental practice (Ametistova & Knizhnikov, 2016: 19). Greenpeace Russia has joined this concern with a media commentary (see Johnson, 2018). WWF Russia also discusses the Yamal LNG project's impacts to the beluga whale (*Delphinapterus leucas*) and threatened bird species (see Ametistova & Knizhnikov, 2016: 56–57; WWF & WWF Russia, 2015: 11).

Another document of WWF and WWF Russia (2015: 3) condemns the project's ESIA "*not complete regarding a number of issues*". It (2015: 5) refers to a policy agreement signed by 21 Russian environmental NGOs to point out that Yamal LNG's development model is contradictory to the Environmental Standards for Operations of Oil and Gas Companies Acting in Russia (2004). WWF and WWF Russia (2015: 4–5) consider that if the Yamal LNG project would have been integrated with JSC Gazprom's projects on Bovanenkovskoye fields, area would have been saved from excess infrastructure development and a better placing for the LNG seaport would have been found. According to them, the government's natural resource policy was the leading reason why integration was not considered: "*The reason for this situation is, first of all, weak government policy concerning application of comprehensive approaches in development of resources, which imply optimization of solutions for infrastructure development, ecosystem-based approach and strategic environmental assessment*."

Despite NGOs' influence toward the Russian society in climate and energy issues is limited, many of them have transnational ties on their support. This has as well led many NGOs to be included in the government's list of "foreign agents" – as a part of wider restrictions on NGOs' space to act in Russia (Pierk & Tysiachniouk, 2016: 998). Often Russian NGOs direct their environmental appeal toward international audiences, as they can be easier to mobilize than the Russian civil society (Henry, 2010: 767). However, the relationship runs the other way as well: Henry (2010: 760) suggests that "*environmental norms*" can be shared and promoted within the international environmentalist community, in which Russian NGOs assist. It is logical to assume that in international partnerships and especially branch organizations, such as Greenpeace and WWF with their top-down administration models (see Greenpeace, 2019; WWF International, 2013: 5), information, values and political rationale is shared.

Some organizations who Russian NGOs have partnered with engage actively in climate and energy politics. As an example, Greenpeace International publishes its own energy outlook as an alternative to the IEA's (Greenpeace International, Global Wind Energy Council, & SolarPowerEurope, 2015: 4). Some of these partnerships regarding the Yamal LNG case include "*support*" of the European Climate Foundation for WWF Russia's report *Prospects and opportunities for using LNG for bunkering in the Arctic regions of Russia* (see Klimentyev et al., 2017: 2), the appearance of the "*head of the pressdesk*" Tatiana Vasilieva of Greenpeace Russia in Greenpeace International's article about Nenets facing climate change (see Vasilieva, 2016), and cooperation of the Russian Association of Indigenous Peoples of the North (RAIPON) with other organizations related to reindeer husbandry in the CAFF (2006) report *World Reindeer Husbandry*, which discusses climate change and other environmental impacts of the oil and gas industry.

In addition, there are international civil society actors who openly challenge state interests regarding energy security (described above in section 3.1.), claiming them unsustainable. For example, one such actor is the Heinrich Böll Foundation, who declares itself inter alia a "*think tank for policy reform*" that is "*closely associated with the German Green Party*" (Heinrich Böll Stiftung, 2013). Regarding this, it has some limited leverage on the politics of Germany and the EU.

4. METHODOLOGY

This section describes the research methodology of this thesis. Section 4.1., *Methodological design*, describes the methodological structure of this study, explaining why particular methods were used. The case study methodology this study follows is described in section 4.2., *Case study*. Section 4.3., *Data*, describes the data of this study and how it was collected. Section 4.4., *Frame analysis*, introduces the frame analysis method and tells how such was conducted. Section 4.5, *Applying the neo-Gramscian approach*, provides information about applying the theory approach in analysis practice. Finally, section 4.6., *Ethical considerations*, discusses research ethical issues regarding this study. An additional report of the research process can be found in Appendix 4.

4.1. Methodological design

The research design of this study follows the format of an explanatory case study, thus providing significant documentation of the Yamal LNG case (see Yin, 2009: 7–9). Following the case study methodology, various types of data are included (see Yin, 2009: 99).

The analyses of this study were conducted in two stages: The first stage consisted of a basic frame analysis, which provides an in-depth description of the stakeholders' understandings of the Yamal LNG project in relation to energy security and energy transition. As mentioned in the previous section 3., hegemonic ideology that actors of the historical bloc may have adapted does not necessarily reflect the fundamental values or interests that they would express in an ideal situation. In response to this, I suggest that frame analysis can be used to gain deeper understanding of consenting actors' worldviews – particularly since hegemonic ideology is always fragmented and reveals ideas behind the hegemonic projection of reality (Levy & Newell, 2002: 87). Therefore, I used frame analysis to find out frames through which stakeholders and experts of the Yamal LNG case understand the project's relation to energy security and energy transition. These cognitive frames, which are embedded in politics via discourses, reveal the stakeholders' sensemaking of the project – as well as operation space (Burr, 2003: 170), since frames guide actions (Huttunen, 2014: 65). Section 5.1. presents the results of the frame analysis, which basically answer to the first research question: *how the stakeholders of Yamal LNG consider the project to connect with the energy security of Russia?*

However, frame analysis itself does not provide sufficient tools for analyzing power, as it does not explain well how an actor came to use certain frames in its speech or text. This is why I combine the neo-Gramscian approach with it, focusing particularly on how strategy is used to alter understandings of reality. This second stage of analysis explains how stakeholders utilize frames to appeal on others for the cause of gaining their support, which legitimates the stakeholders' actions (see Levy & Newell, 2002: 87). Comparing stakeholder claims to the frames found with frame analysis makes it possible to identify when a stakeholder utilizes a certain frame or has adapted one regarding a specific issue. Because hegemonic ideology is incomplete and challenging claims are adapted only partially (Levy & Newell, 2002: 87), this is done by comparing the claim or an argument under focus with the frames, which reflect the studied actors' fundamental interests and understandings of the world (Goffman, 1986: 21). I describe this analytical stage in detail in section 4.5., *Applying the neo-Gramscian approach*. Furthermore, arrangements in organizational and material dimensions (most of which are given in section 3. and discussed in the data) are examined in relation to discourse, which they interact with (Levy & Newell, 2002: 93). Ultimately, this stage of analysis allowed me to formulate an understanding of social relations and strategy, which are presented in section 5.2. Finding out the stakeholder positions, strategies of discursive accommodation, and their practical success reveals why a certain projection of energy security dominates. Hence, this part of the results answers the second research question: *Whose interests the Yamal LNG project actually secures as energy security and how that concept of energy security becomes projected as a general national interest, instead of having energy transition among the top objectives of energy policy?*

4.2. Case study

Case study is a widely used methodology in all social sciences (see Yin, 2009: 4). It is used to examine complex social phenomena that are contemporary (Yin, 2009: 4) and inseparable from their contexts (Yin, 2009: 18). Case study research is often explanatory, building upon the research questions of "how" and "why" (Yin, 2009: 9). Testing hypotheses or finding out causal relations come second to profound, holistic, and valid descriptions of the studied case (Hirsjärvi & Hurme, 2008: 58), which is pursued with high level of data triangulation, including different types of data (Yin, 2009: 115–116).

Case studies can include multiple cases, but often they focus on single cases. The scope of this study covers only one case for the following reasons given in the case study methodology: First, the Yamal

LNG is the first project exporting natural gas out of Russia without direct state ownership, which makes it a unique case. Unique cases cannot be fruitfully compared to any other (see Yin, 2009: 54). Secondly, however, with extensive state involvement and location in Western Siberia (see Tatarkin & Loginov, 2015: 25–30), the Yamal LNG case can simultaneously function as a type example of a Russian Arctic energy project. Information drawn from the case can be considered applicable to other similar cases (Yin, 2009: 47–49). Thirdly, the size limit of a master's thesis prevented choosing a comparative approach, because multiple-case studies may require resources and time beyond the limits of an independent researcher (see Yin, 2009: 53)

A common critique of case studies is that since they are case-specific, their results cannot be generalized. However, case studies can contribute to analytic generalization in terms of expanding, testing, and developing theories (Yin, 2009: 15). For example, this study could contribute to understanding energy security as a discursive construct for incumbents, who can resist destabilizing change by generalizing a certain projection of security. Moreover, Alasuutari (1999: 234) notes that such ideal of science which demands (statistical) generalizability (see Yin, 2009: 15) is not the only one. A number of fields consider that the ultimate objective of social science is to stimulate critical thinking and provide material for its support. From this perspective, this study does not find out whether LNG could be integrated to energy transition, but instead, seeks to provide a perspective on how the discussion of the issue and consequent actions are influenced by politics.

4.3. Data

The data of this study was collected following the case study methodology. In total numbers, the study data consists of 1,702 pages of text in 51 sources, including 11 research interviews. By format, the data can be grouped to research interview data, which consist of 7 oral interviews and 4 email interviews, and archival (or "desktop") sources (see Gritsenko & Efimova, 2017: 5), which were found online. Archival sources include 7 ready-made interviews and 33 text format sources. Closer look to the data groups is given in sections 4.3.1. and 4.3.2. Appendix 1 provides a list of all study data.

Additionally, I categorize the data into two epistemic levels (see Yin, 2016: 91). First, stakeholder level data was collected from actors who indisputably hold agency in the case and affect its outcome. It includes data from the following stakeholders of the Yamal LNG case: the shareholders of JSC

Yamal LNG, both the federal government of Russia and the regional government of YNAO, a project contractor, industrial organizations, an intergovernmental organization (IGO) representing gas producer countries, a Finnish gas supply company, the EU, various NGOs that publicly debate natural gas, a political think tank that is associated with the German Green Party (Heinrich Böll Stiftung, 2013), and various IGOs representing indigenous Arctic communities (complementing failed interview attempts, discussed in section 6.4.). These stakeholders were chosen because they both represent different important societal sectors of the Yamal LNG case field (see Levy, 2008: 951) and geographical sites that are essential mediators of political-economic change (see Bridge & Bradshaw, 2017: 216).

Second, expert level data was collected from experts of the research topic (e.g. academics and consults), whose actions do not directly impact the outcome of the case, but who possess valuable information of the research topic. In quite poorly researched subjects, like the Yamal LNG project, expert knowledge can prove to be useful (Hirsjärvi & Hurme, 2008: 35). Following a constructivist approach, I consider an expert as a person who possesses specialized knowledge, that is not directly available to myself as a researcher, and who has a prestigious position in a qualified organization relevant to my research subject (Bogner & Menz, 2009: 47–50). Experts may be willing to make such information public that stakeholders would like to conceal, and can function as a source of complementary information about the stakeholders (see Bogner & Menz, 2009: 46).

However, not all data can be indisputably incorporated into either of the categories. For example, an included academic media article focusing on the Yamal LNG project has been authored by Tatiana Mitrova, who was the 2006–2011 Head of the Center for International Energy Markets Studies in the Energy Research Institute of the Russian Academy of Sciences (Oil & Gas Council, 2018), which has involved in developing the energy strategy of Russia (ERI RAS, n.d.). In such few cases where the data level could not be clearly defined, the data was namely classified as expert level data in order to avoid error in higher priority stakeholder data. In the analysis, data sources were treated individually.

The general principle in data collection was to try to get as close as possible to the political process under investigation and gather as detailed information as possible. In practice, this meant that I wanted to include interview data (see Mosley, 2013: 6), primarily from the case stakeholders which I identified based on literature and media. However, since it would have been unrealistic to saturate the data with stakeholder interviews (see Hirsjärvi & Hurme, 2008: 60), I complemented it with archival sources and expert interviews.

The principle to prioritize stakeholders over experts stems from that action and behavior interconnects with discourse. Ideas shape interests and actions (see Kratochvíl & Tichy, 2013: 393), which are implicated in discourses (Burr, 2003: 169). By collecting and analyzing text data (including oral) from stakeholders, through discourse, it is possible to reach the ideas of the actors who formulate actual policy. Experts might share similar ideas, but divergence is also likely. Moreover, this is a widely used methodology in social constructivist energy and environmental policy analyses (see Ekberg & Tarasova, 2016: 173; Huttunen, 2014: 70).

Due to my limited understanding of the Russian language, only English and Finnish language data is used in the study. However, since a large share of the research interview participants are native speakers of Russian, they can reflect Russian accounts on the research subject. This might widen the scope of the study to cover some Russian discussion on the topic. Ultimately, the study should be understood as an English–Finnish rendition of the topic. According to Yin (2016: 88), multilingualism, even with two languages, increases credibility due to triangulation.

Nevertheless, different nationalities are present in the data: By origin of represented organization, 22 sources of data can be traced to Russia, 6 to Finland, 5 to China, 3 to Germany, and 2 to the United Kingdom. I consider that nine sources have international origin.[5] One archival data source includes authors from Russia and France.

As this study's data is carefully selected, well triangulated, follows the case study methodology, and has particularly large volume for a master's thesis, it makes possible to answer the research questions validly and reliably. This was also shown in practice while conducting the analysis, as I found that the data saturated (Hirsjärvi & Hurme, 2008: 60). It bore quite uniform results between different data levels and groups. Moreover, having multiple epistemic levels and various formats of data complement possible weaknesses of individual data types. While the primary interview data answers direct questions, archival sources allow the actors to discuss the study themes in freer forms, without the presence of the researcher (see Yin, 2016: 142).

[5] They consist of intergovernmental and non-governmental organizations with international activities and the French origin supermajor oil and gas company TOTAL S.A., being a transnational corporation with production and operations in numerous countries (see TOTAL S.A., 2019: 7).

4.3.1. Interview data

The interviews, 11 in total, were conducted in English or Finnish, using the methodology of thematic interview[6], which is a semi-structured interview methodology. The prominent idea in the methodology is that interviewing follows certain beforehand selected themes, which are shared between separate interviews. It allows relatively free conversation and dialogue compared to more structured methodologies (e.g. with fixed questions), giving space for the interviewee's interpretation and value expression (Hirsjärvi & Hurme, 2008: 48). Table 1 summarizes the research interviews.

Table 1. *Research interviews.*

REF. CODE	ORGANIZATION TYPE *& AFFILIATION*	SECTOR	COUNTRY	DATE	DATA TYPE	SIZE (pp.)	LEVEL	NOTES
A1	Energy sector think tank *Deputy Director on Energy Studies*	Academic	RUS	2019	Email	5	Expert	[7]
A2	Energy sector consulting firm *Deputy Director General*	Consulting	RUS	2019	Email	4	Expert	[8]
A3	Energy sector consulting firm *Consultant*	Consulting	RUS	2019	Oral (Skype)	9	Expert	
A4	Environmental organization *Program Leader*	NGO	RUS	2019	Email	2	Stakeholder	[9]
A5	Environmental organization *Program Leader*	NGO	RUS	2019	Email	5	Stakeholder	[10]
A6	State-owned gas company *Senior Vice President*	Commercial	FIN	2019	Oral	9	Stakeholder	[11]
A7	State-owned gas company *CEO*	Commercial	FIN	2019	Oral	6	Expert	
A8	Private ship engineering company *CEO*	Commercial	FIN	2019	Oral	5	Stakeholder	[12]
A9	Financial research institute *Senior Adviser*	Governance	FIN	2019	Oral	5	Expert	
A10	University *Doctoral Candidate*	Academic	FIN	2019	Oral (Skype)	1	Expert	[13]
A11	University institute *Program Director*	Academic	UK	2018	Oral (Skype)	6	Expert	

[6] Free translation of the Finnish word *teemahaastattelu*. Other translations have been used as well.
[7] The organization took part in creating the Energy Strategy of Russia for the Period up to 2020.
[8] The company focuses on political analysis of the Russian energy sector.
[9] Considered as a stakeholder due to public engagement in debate about LNG's climate impacts.
[10] Considered as a stakeholder due to campaigning against energy infrastructure development in YNAO.
[11] Considered as a stakeholder, since the company markets natural gas widely as a solution to climate change.
[12] Data partially lost, but the interview was partially reconstructed.
[13] Data almost completely lost.

The interview structure consisted of three main themes, which I discussed with all interview participants. I chose the themes basing on previous and background literature on the research topic, and gave them the names *the project and actors*, *energy security*, and *climate change and energy transition*.[14] Additional questions were also presented depending on the professional affiliation of the interview participant. I had a list of further-in-depth questions to guide me asking advanced questions. In order to map out the research field, I incorporated questions of the production network of Yamal LNG (see section 3. for reference). Except one, all of the interviews started with an introductory question to get familiar with the interview situation (Hirsjärvi & Hurme, 2008: 107) and to find out the participant's affiliation and general view of the energy landscape. Most of the interviews ended with an open comment. However, nobody added anything valuable for the analysis. I ended the interviews when the discussion started to saturate or when time ran off. The length of the interviews varied from 30 minutes to about 75 minutes.

I mostly picked the interview questions that I asked from a framework sheet, which has 3–5 questions under every theme (see Appendix 2). During the interview phase of the study process, I tried to develop the sheet based on experiences gained from interviews (Hirsjärvi & Hurme, 2008: 59). Quite often I reshaped the scripted questions when presenting them to ensure fluent continuity in discussion and gradual change in discussed themes. Acknowledging that interview answers reflect the interviewers ways to ask questions (Hirsjärvi & Hurme, 2008: 49), I avoided presenting my own opinions and paid attention to listening (see Yin, 2016: 28).

I conducted the interviews in three setups: conventionally, via Skype (internet call and video call), and by email questionnaire with open questions. Regarding the latter, I tried to emulate the thematic interview methodology as much as possible and sent few more in-depth questions back after receiving answers. Permitted by the participant, I double-recorded the live interviews, used Skype's call record function, and made some notes. All audio data was transcribed.

Unfortunately, two of the interviews were largely lost due to technical problems. However, it was possible to reconstruct one (A8) quite well, basing on memory, notes and specialist literature. I was not able to reconstruct the other (A10), which, eventually, provided only partial answers to few questions. I tried to compensate the losses with an extra interview (A6) in early April 2019. At this point, the interview delivered mostly saturated data. Archival data compensated the losses as well.

[14] The theme names used in this paragraph are free translations of Finnish used in the interview framework sheet.

The central idea for choosing interview participants was to interview representatives from the most important sectors (e.g. governance, commercial, NGO etc.) and positions regarding the research field and the research questions, in order to understand interplay between different actors. Academics from the Research Group on the Russian Environment of the Aleksanteri Institute (2019) were consulted to suggest potential experts for interviews. I also made two conference trips to Russia to search for potential interviewees, which resulted in contacts and few interviews.[15] Additionally, some interview participants were identified from staff listings of the stakeholder organizations.

Most of the potential interview participants were contacted by email, which explained the research interest, the topic, the *From Failand to Winland* research project (From Failand to Winland - tutkimushanke, 2019), and practical affairs. It also promised extensive anonymity. In total, 30 persons were invited to participate interviews.

4.3.2. Archival data

Archival data was gathered for triangulation and to fill possible gaps in interview data. In practice, I collected data from unreached stakeholders and included other types of data (e.g. strategies and other documents with institutional value in steering action).

The data includes 11 reports, 7 discussion transcripts, 6 bulletins, 5 strategies, 2 speech transcripts, 1 industry magazine article, and 1 academic media article (not peer-reviewed). In addition, the absence of media data was partially compensated by including 6 video-recorded interviews, which were published in professional and mass-media, 1 published interview transcript, and 1 reply to an interview question given in a conference (Arctic Media World, 2018).

I acquired the archival data by searching the case stakeholders' web pages of documents related to the Yamal LNG project, energy security and energy transition. I also used Google search with combinations of the search terms "Yamal LNG", "Yamal", "energy security", "energy transition", "climate change", "LNG" and "natural gas" to find sources that comment the Yamal LNG project,

[15] The first conference, *Energetika XII* (Saint Petersburg State University of Economics, 2018), was organized in St. Petersburg, 13.–15.11.2018. The second, *Arctic Media World* (2018) media congress, was held in Salekhard, 9.–11.12.2018.

gas industry in the Yamal Peninsula, and LNG or natural gas in relation to energy security, energy transition or climate change. In addition, I did some snowball sampling by looking at references to actors and documents in the collected data (including interviews) (Hirsjärvi & Hurme, 2008: 59–60).

The archival data collection required heavy selection, as only relevant sources had to be included in the data. To ensure novelty of sources, a general principle was to reject all documents released before 2015, which was the year the Paris Agreement (United Nations, 2015a) was established. However, with documents regarding the Yamal LNG project development, the timeframe is slightly longer. Also, since few documents seemed indispensable and particularly valuable, they were included as exceptions. For example, the 2010 energy strategy of Russia (Ministry of Energy of the Russian Federation, 2010) was included in the data, because no English nor Finnish translations of a newer strategy exist.

4.4. Frame analysis

Frame analysis analyses the appearance of frames in language. According to Franzosi and Vicari (2018: 394), "*frame analysis aims to investigate processes of signification by looking at the way meanings become functional to organize social experience*".

Franzosi and Vicari (2018: 395) consider media studies and sociology as the most important disciplines contributing to the development of the frame concept. However, frame analysis has been used extensively in various other fields – such as political science (see Ekberg & Tarasova, 2016; Huttunen, 2014), which have produced own variations of the concept (Franzosi & Vicari, 2018: 394).

Methodologically, frame analyses have been conducted with varying focus and precision, depending on frameworks of research (see Ekberg & Tarasova, 2016; Huttunen, 2014; Kuypers, 2009: 188–197; Ojala & Harjuniemi, 2016). Consequently, there is no single or "objective" approach for conducting frame analysis (see Franzosi & Vicari, 2018: 394). However, research articles often describe how their frame analyses were conducted in practice (e.g. Ekberg & Tarasova, 2016: 172–173; Huttunen, 2014: 66; Ojala & Harjuniemi, 2016: 5–6).

Instead of choosing to adopt some of the early developments of frame analysis, I mainly followed Kuypers' (2009) "framing analysis" approach to conduct my analysis. This was due to the fact that

frame analysis has overcome issues and evolved since Bateson and Goffman laid the theoretical foundations of the method (Franzosi & Vicari, 2018: 393–402). However, since Kuypers' (2009) description of using the method in practice is limited as usual, making no exception to any other scholarly guide, I adapted some practices given by other scholars in order to be able to conduct the analysis. My analysis followed the description given in the next three paragraphs.

In Kuypers (2009: 187) approach, the process of identifying frames first deals with reading the data and searching for "themes" (see Ekberg & Tarasova, 2016: 172–173). He defines theme as a subject of an expressed thought or discussion. [16] Next, after themes have been found and grouped (see Reese, 2009: 30), particular "framing devices" are used to examine how found themes were interpreted (see Kuypers, 2009: 187). This results in frames, which are then examined with "reasoning devices" that are used to identify reasons, causes, consequences, moral judgements, and solutions (Vehkalahti, 2016: 99–102). What is not said is also important to notice (Tynkkynen, 2016: 393), as it hides meanings of the context and makes other aspects more significant (see Goffman, 1986: 201). Research questions guide the whole process of analysis in order to keep it relevant (Kuypers, 2009: 186). Usually the results of the analysis are summarized in a matrix (see Huttunen, 2014: 69; Ojala & Harjuniemi, 2016: 7–10; Vehkalahti, 2016: 102).

I coded the study data with the Atlas.ti software in order to identify themes (including such as "project development", "Russian energy security", "energy importer security", "energy transition" etc.), which I then grouped. The framing devices I used included words, concepts (particularly from energy security and energy transition literature), labels, metaphors, analogues, and contextualizing remarks (see Kuypers, 2009: 186–191). My starting point for identifying frames was to look for different understandings of problems (as well as what are not considered as problems) related to the themes I had found. When I had found distinct frames, I applied reasoning devices in order to understand relationships between various themes and logic of reasoning within the frames. I particularly focused on problem definitions, reasons, consequences, solutions, and moral judgements, which especially made differences in understandings visible. I also noticed issue aspects that had been left unsaid.[17] With this, I avoided the common failure of mistaking sole themes as frames (see Kuypers, 2009: 188).

[16] For example, in the following quote (A1) "*Energy transition is a political term for the desire to fully switch to renewable energy sources*", from this study's data, includes the themes "energy transition" and "climate change mitigation", as the text discusses energy transition, aimed for eliminating greenhouse gas emissions.

[17] For example, I asked an interviewee (A1) that is it possible to meet the target of the Paris Agreement. In response, he answered that attempts to take "*tough measures*" in climate policy would lead to failure in energy policy since the demand for energy is increasing globally. He argued that a challenge is to provide satisfying supply, which would reduce energy poverty, while simultaneously decarbonizing energy sources. Acknowledging the energy trilemma concept, I noticed

4.5. Applying the neo-Gramscian approach

Applying the neo-Gramscian approach requires the researcher to compare contents of data with theory and make interpretations. There are different ways and practices, but a common principle is to contrast empirical data to neo-Gramscian theory with a focus on theoretical concepts, alliances, strategic action, and different forms of power. I conducted my analysis by following examples from IPE (see Evans & Phelan, 2016; Haas, 2019; Levy, 2008).

In practice, my analysis proceeded with the following steps: First, as I had my data coded and arranged under thematic categories after conducting the frame analysis, I extracted coded text snippets from the Yamal LNG stakeholders. Basically, these were claims and arguments – or concepts which embed such (see Kuypers, 2009: 187). I compared these to the arguments, claims, and values that I had grouped under the frames found with frame analysis. I flagged similarities in the stakeholder claims (in text snippets) with color codes matching with the frames that they represent. Secondly, I connected the claims to stakeholders by looking at who had stated them. Thirdly, by comparing the claims of a stakeholder, I was able to analyze how particular stakeholders discuss particular issues. When there was a mismatch between frames that appeared in an individual stakeholder's statements regarding a topic of discussion, I identified this as a potential sign of discursive accommodation – adapting a certain frame in order to appeal on others. Fourthly, by comparing such arguments about specific issues, I was able to categorize groups of arguments and notice patterns of discursive accommodation. When I also looked at how material and organizational arrangements interact with such discursive arrangements, I came up with certain discursive strategies. Finally, following neo-Gramscian theory about the conditions of a historical bloc and actor roles in it, I could specify whether a historical bloc over the Yamal LNG case appears and which roles each stakeholder has adopted. Previous literature supported my interpretations about strategies and social roles (e.g. Geels, 2014; Haas, 2019; Henry, 2010; Levy, 2008; Levy & Newell, 2002).

what had been left unsaid: The interviewee values the Paris Agreement – the single most important political agreement to mitigating climate change – less than the other two dimensions of the energy trilemma.

4.6. Ethical considerations

Because information can be used for ethically wrong purposes, the consequences of information production must be evaluated beforehand. A researcher's status as a member of the science institution provides legitimacy and trust, which generates responsibility to use it rightfully. This section presents crucial ethical considerations of this study.

The principal ethical considerations of this study relate to data collection. The study provides anonymity to research interview participants and invitees, as some of them have various ties to the Yamal LNG case. This is required to ensure the option to express open critique (see Yin, 2016: 48).

As this study is best described as a critical observational study, having high research integrity (Yin, 2016: 44), I see no alarming ethical problems considering the use of its content. The results of the analysis basing on the neo-Gramscian approach (presented in section 5.2.) might prove useful in developing further political strategy. However, this study does not take sides, and thus, they provide equal resources for development for all the stakeholders involved in the case.

Since this study classifies best under the field of environmental politics, I argue that it is central to consider its environmental ethics. The study's negative environmental impacts are mainly the consequences of traveling committed to data collection. With case studies, data collection may often require field work in the case area. During this research process, I made two long-distance travels: First, to St. Petersburg, and second, to Sabetta and Salekhard, YNAO. The purpose of these trips was to gather interview contacts and witness the Yamal LNG project area. My effort to reduce the negative environmental impact of traveling was to minimize air travel. Except a trip from Helsinki to Moscow, and a commissioned Moscow–Sabetta–Salekhard–Moscow trip I traveled by rail.

5. RESULTS

The results of this study are divided in two sections: First, section 5.1. describes the results of the frame analysis, regarding the relationship of energy security, energy transition, and Yamal LNG. These frames represent cognitive frameworks that guide interpretation and actions of the case stakeholders (Goffman, 1986: 21), and which stakeholders also utilize discursively to influence others (see Snow & Benford, 1992: 137–138). Secondly, section 5.2. applies the neo-Gramscian approach to the data, resulting in analysis of power. The section examines political contestation based on stakeholder alliances and strategic action by comparing stakeholder data to previously identified frames and social and material conditions described in section 3., *Yamal LNG*.

As aforementioned in section 4., *Methodology*, this study includes data in two levels: stakeholder and expert. I make this division visible when presenting the results. Whenever my interpretation is solely based on expert data, I refer to the particular expert source(s) in question. Descriptions for interview reference codes are presented in *Table 1*. However, when an argument is adopted from a stakeholder by the expert (e.g. "*My experience of discussions with the Novatek management imply that they care about air quality in cities.*"), I do not include a reference. I also use literature to guide interpretation. Otherwise, all interpretations are based on stakeholder data, even if the sources are not namely referred to.

5.1. Framing Yamal LNG, energy security, and energy transition

The following subsections describe the four resulting frames, which I named as *Neorealist producer*, *Neorealist importer*, *Neoliberal economist*, and *Environmentalist* (see *Table 2* for summary). These names refer to political ideologies and schools of political thought, which are reflected in the frames. According to Proskuryakova (2018: 205–206), the Neorealist and Neoliberal schools are the most widely represented in energy security research, highly influenced by the field of international relations. They also reflect two of the three most common discourses in EU–Russia energy relations, *diversification* and *liberalization* (see Kratochvíl & Tichy, 2013: 401–403), whilst environmentalist thought on energy transition anticipates many new themes in energy security research (see Proskuryakova, 2018: 209).

Table 2. *Summary of the resulting frames.*

	NEOREALIST PRODUCER	NEOREALIST IMPORTER	NEOLIBERAL ECONOMIST	ENVIRONMENTALIST
IDEO-LOGICAL BACK-GROUND	– Neorealist discipline of IR – Nationalism – Naturalism – Pragmatism	– Neorealist discipline of IR – Nationalism – Naturalism	– Liberalism – Neoliberal economics – Individualism	– IPE discipline of political science – Green politics – Democracy – Internationalism
YAMAL LNG	– Yamal LNG compensates for depletion of natural gas reserves in traditional production areas in Western Siberia. – Yamal LNG triggers energy project-based infrastructure developments along the coastline of Russia's Arctic region, thus developing the NSR. – Yamal LNG diversifies Russia's energy markets and export routes by exporting LNG eastwards to Asia via the NSR. – Yamal LNG showcases that Russia is successfully able to implement energy projects despite financial sanctions imposed by Western actors.	– Yamal LNG is a secure source of supply for China, who has control over the company. – Yamal LNG advances the Belt and Road Initiative, whose central objective is to improve China's supply security. – Yamal LNG produces LNG to global markets, and thus brings energy security and environmental benefits for energy importing countries.	– Yamal LNG is a purely commercial project, but happens to correlate with Russia's state interests. – International cooperation and public–private partnerships, as in the Yamal LNG project, stabilize project security. – Yamal LNG's gas can displace coal consumption in Asia. However, individual energy projects are only marginally related to climate change.	– Russia acts irresponsibly, as it engages in hydrocarbon extraction in the Arctic, which is made possible by climate change, caused by fossil fuels. – The Yamal LNG project could be undermined by climate change risks, which the project actors fail to account. – However, Yamal LNG is not the worst energy project in the Yamal Peninsula.
ENERGY SECURITY	– Russia's economic and political regime depends on energy export revenues. – Producing, exporting and consuming hydrocarbons is intrinsic. – Russia's energy security is about ensuring the continuity of the hydrocarbon-intensive economic–cultural–political system by addressing risks related to resources, their development, market demand and export. – Energy security is a state matter.	– Social and economic structure, well-being and development depends on access to energy resources. – Secure supply and sovereign control over resources are the key objectives of energy security. – Energy security is a matter of states, state coalitions and trade partners. – Energy security and climate change mitigation are opposite directions of energy policy.	– Energy security is about the security of supply with an acceptable financial cost for net-energy importer countries. – The market addresses energy security. More supply means more security. State intervention to the market by energy security politics constructs energy security problems. – Liberalization and high liquidity of the LNG market is beneficial for energy security.	– The concept of energy security should be re-evaluated, as it is historically bound to centralized fossil-fuel-based energy systems. Today, climate change and social development are the largest security concerns related to energy. – Conventionally understood energy security, reproduced by private corporate and capitalist state actors, drives energy policy into the opposite direction than climate change mitigation requires. – Climate policy and energy transition is a risk to Russia's energy security.
ENERGY TRANSITION	– Climate change is a non-anthropogenic phenomenon, which benefits Russia by improving conditions for hydrocarbon production and export. – Climate policy frameworks lack realism and thus are not legitimate. – Energy landscape does not allow penetration of renewable energy. – Energy transition works as a geopolitical instrument against actors with pragmatic energy policy, which is required to address social and economic issues.	– The stage of technological development is insufficient to allow transitioning to a renewable-energy-based energy system. – Low-carbon technologies are beneficial for both the climate and energy security. – A share of fossil fuels in society's energy mix does not undermine climate policy. Fossil fuels are still needed at least in medium term.	– Market forces and technological development determine the future of energy. – Energy transition should be an endogenous process, in which innovations and practices should be tested in competitive commercial environments. – Natural gas and LNG can displace fuels with higher GHG emissions.	– A phase-out of fossil fuels and a transition to a fully renewable-energy-based energy system is required to tackle climate change. – Natural gas, resulting in carbon lock-in and fugitive emissions, is not needed, since the prospects for a climate sustainable energy system are already available. The question is about political will and social justice. – However, natural gas is not the worst issue regarding climate change. Higher priority should be given to coal and oil.

5.1.1. Neorealist producer

The fundamental basis of energy security in the *Neorealist producer* frame is the importance of fossil fuel production for Russia's national economy and society, which is considered as heavily dependent on export revenue generated by energy trade. Export revenue is especially essential for funding the state budged. The welfare of the society is considered to be directly related to the economic condition of the society, which relies on the financial success of the energy sector. Achieving a higher level of economic development requires increasing natural gas production, states an interview expert, Deputy Director on Energy Studies of a Russian energy sector think tank (A1).

The Neoliberal economist frame considers Russia's dependency on energy export revenues problematic and suggests abolishing it by diversifying the structure of the national economy (see further section 5.1.3.). Reducing dependency is somewhat coherent with the Neorealist discipline too. It considers the world as an anarchic setting, in which self-interested states compete against each other over resources, instead of, for example, enjoying the benefits provided by mutual dependency (Stein, 2015: 26). However conflictingly, in this frame, economic diversification should happen through modernization of the energy sector and increasing investment into it (see Ministry of Energy of the Russian Federation, 2010: 14, 22).

In this frame, the state is responsible for energy security. Governance of the energy sector is a particular interest of Russia's political leadership. President Putin (2018b) regards energy security as "*extremely important and pressing*". In a meeting of President Putin and the Energy Minister Alexander Novak, the minister expressed an objective related to the strategic *gazifikatsiia*[18] program to connect more domestic users, towns and neighborhoods into a gas supply network (see Putin & Novak, 2019). While addressing energy supply security, the gazifikatsiia program itself fortifies state central power in regions of Russia via energy infrastructure by increasing regional dependence on gas that comes with structural change and economic development. Control over the gas supply network is in the hands of the central authority, who possesses significant legal ownership and political power over the energy sector (Tynkkynen, 2016: 377–378, 382, 392). Although being just one example, this demonstrates how energy security politics strengthen the power of Russia's political regime – which again reflect to this frame's tendency to consider energy related issues as state issues. Briefly said, energy security is considered also as security of the political regime.

[18] Translates as "switching to gas" or "construction of gas infrastructure".

Thus, energy security is defined as "*one of the most important components of the national security*" in the Energy strategy of Russia for the period up to 2030 (Ministry of Energy of the Russian Federation, 2010: 28).

The Neorealist producer frame considers that the pragmatic concept of Russia's energy security, first of all, deals with resource base: Energy security is provided with cheap and abundant gas resources. President Putin (2018) emphasizes that even though Russians are "*lucky*", the "*truly enormous*" resources "*were given … not by the Lord alone*". "*Past generations … developed [Russia's] lands*", and "*the work done by … predecessors*" is continued in energy companies. In this sense, sufficiency of resources is not considered as a problem in this frame, but attention is paid to their development: Localization of production technology, project financing and efficient management are stated as key for ensuring the resource base. Regarding geology, the Energy strategy of Russia for the period up to 2030 (Ministry of Energy of the Russian Federation, 2010: 75) considers the depletion of gas deposits in traditional production region Tyumen problematic, and addresses this by stating that "*developing new gas-producing centers on the Yamal Peninsula*" is a "*necessity*". In this sense, development of Russia's Arctic region is related to energy security.

Secondly, multiple interview experts argue similarly to Sharples (2013: 695) that security of export is a central pillar in the concept of Russia's energy. Essential for this is projecting long-term market demand realistically, claims an interview expert, a university institute Program Director (A11). Having good relations to energy trade partners, and diversifying export markets and delivery routes are also pivotal components of energy security.

Besides the Arctic is the region which is considered to allow Russia to avoid the threat of decreasing total natural gas reserves, in this frame, it is also considered important for the delivery of energy exports. Therefore, regional development in Arctic Russia is related to energy security. In this frame, the NSR is considered a priority for Arctic development. The NSR provides an additional export route for Russia's hydrocarbon trade, and saves time compared to the Suez Canal–Malacca Strait route in shipping eastwards to Asia. Thus, development of the NSR is considered strategically important.

Essentially NSR development is considered to realize through infrastructure developments on the Arctic coast and in arctic shipping, for which upstream energy projects are seen as the source. In general, LNG is considered as central for Arctic development and for the future production of

Russia's natural gas. In its behalf, the Yamal LNG project – widely framed as successful – is considered to impose a trigger effect for energy project development in Russia's Arctic region. The frame considers that the project was set to explore potential for LNG development in the Arctic, and was completed ahead of its schedule, despite financial sanctions imposed over Novatek by the United States (Novatek, 2019: 62). It was able to gather financing from the West and is seen as a proof of willingness for companies to do business with Russia. In response to China's increased presence in the Arctic region and Chinese companies' shareholder position in JSC Yamal LNG, the frame regards that the balance of power in the Arctic does not allow China to grow its power. In addition, international cooperation is not required nor does it itself improve the energy security of Russia.

In this frame, climate change is closely linked to the approach on Arctic development. According to President Putin (2017a), "*so far, we do not get the sense here that the temperature is going up rapidly*", as he claimed that Moscow had faced snowfall and St. Petersburg "*quite chilly*" weather in June 2017, thus questioning global warming on one occasion. Earlier the same year, Putin (2017b) suggested that climate change "*may have to do with some global cycles on earth or even some planetary cycles*" and that "*preventing*" climate change "*is impossible*". He told a story of him traveling to the Arctic Franz Josef Land, where an expedition team had witnessed a decline in the number of glaciers already in the late 19th century, before "*there were no such man-made factors, such emissions*". When the impacts of climate change are discussed in Russian context, they are majorly regarded as positive in this frame: Warming of the Arctic region is considered to improve conditions for hydrocarbon production and extend the navigational season in the NSR due to decreasing sea ice. According to President Putin (2017b), this is will lower the cost of Russian LNG and thus improve competitive advantage. To summarize, in this frame, climate change is considered as a non-anthropogenic phenomenon benefiting Russia and the efforts to mitigate it are insignificant – as they face the great powers of nature.

Subsequently, multiple interview experts claim that Russia has no own will to mitigate climate change. The frame considers that disparate interest, stages of economic development and energy landscapes of countries prevent efficient international climate policy. The Paris Agreement (United Nations, 2015a) is considered as a technically just, but not very well working document, which according to Putin (2017b) "*does not contain any mandatory requirements*" for national governments. Its target to limit the rise of the global average temperature to well below 2°C above the pre-industrial level is considered as unattainable. The "*price tag*" for climate change mitigation is considered too expensive, and radical implementation of climate policy could lead to political consequences like the

gilets jaunes, "*as has happened in France*". On the other hand, in St. Petersburg International Economic Forum panel, Putin (2017b) stated that the structure of the economy must be modernized heavily to cut GHG emissions. However, what followed immediately after was an expression of concern over the workforce employed in incumbent fossil fuel regimes, who "*will be made redundant*" and "*join the army of people living below the poverty line*" if they will not be reemployed again.

In addition to climate and policy related notions, the frame seeks to delegitimize energy transition on natural and technological basis. Change in the energy landscape level is seen as a slow process, where subtle transformation takes place constantly. Fast transition is considered implausible. The alleged reason for this is that energy – in (or similar to) its current structure of production and consumption – is considered as a primary structure and a basic human need. In this frame, the energy system has structural power to shape the frameworks determining how energy in society is considered (see Strange, 1988: 24–25). As an energy system based on renewables would look rather different to today's, the current "stage of development" in renewable energy technology is considered as a barrier to energy transition, and, renewable energy services inadequate to satisfy human needs.

The previous naturalistic assumption of energy also bolsters a pragmatist discourse regarding the foreign energy policy of Russia. The frame considers that only third-party actors cause energy security problems and that deteriorated energy relations with the West have been politicized against Russia. The pragmatic ground for problems with energy relations is considered nonexistent: During "*50 years*", Europe's supply security problems with Russian natural gas have been marginal. Additionally, dialogue on energy relations is framed as nontransparent and nonpragmatic. This kind of emphasis on pragmatism combined with the previous framing of climate change sets up ground for regarding energy transition primarily as an instrument for gaining geopolitical power. An expert, Deputy Director General of a Russian energy sector consulting firm (A2), states that "*energy transition is a political term for the desire to fully switch to renewable energy sources*".

Furthermore, energy transition is not considered to fit together with other global issues considered as "realities". Namely, such are the state of social and economic development in developing countries and lower classes of society in developed countries. Energy poverty and cooking with wood are typical examples given in this frame. Growth in the world's total energy consumption is considered as a direct consequence of positive development addressing these issues. Occasionally, the argument is extended to concern Russia and other parts of the world as well: An expert (A2) summarizes that

"*[climate change related developments] should not undermine the economic development of the country and the world as a whole*". Luckily, developing Asian countries are considered to follow pragmatic approaches to energy trade, as they put climate change mitigation after their top-priority "realities" related to social and economic development.

The frame claims that the most efficient, practical, and needed way to satisfy growing demand for energy is to increase natural gas consumption. Natural gas is presumed to continue being one of the primary sources – if not the primary source – of energy in the world for decades. As a quite recent technology, LNG improves the access to natural gas, and thus increases its the share in the world's energy mix, which is considered favorable.

5.1.2. Neorealist importer

The Neorealist importer frame shares ideological similarities with the Neorealist producer frame but adapts a consumer-focused, and thus opposite, perspective on the concept of energy security. In this frame too, the world is seen as an anarchic setting where states compete over resources (Stein, 2015: 26). As this neorealist worldview adapts a net-energy importer perspective, it sets an imperative for energy security: Energy security is about access to energy resources, since nonrenewable resources are finite and access to them can become limited. Thus, security of energy supply is the main concern in the frame.

Access to energy resources is linked to social well-being and continuity of the economic structure of the society. The need for energy derives from basic human needs, which can be satisfied with residential heating in homes, for example. In the context of developing countries and China, access to natural gas is much related to "*improving people's living standard*", as stated by CNPC Vice president Xu Wenrong (2016), and to reducing energy poverty. IEA (2018b: 96–98) estimates that 9 % of population in Asia and 57 % in Sub-Saharan Africa still lack access to electricity, and nearly 2.7 billion cook primarily with biomass, coal and kerosene, which damages health and impairs productivity development. In addition, according to multiple interview experts, urban air quality has become a health risk which is now taken into political consideration in China. Increased access to gas also allows the country to reduce air pollution. This is addressed in Xu's (2016) speech as well.

The neorealist ideological basis of the frame directs to seek sovereign control over consumed energy resources. Security is considered as a state-issue, whereas rival states are sources of insecurity. Actors engaging in this frame pursue a high-level of domestic energy production, which however, is not considered to be easily attainable. Therefore, actors attempt to achieve highest possible control over the resources they import. For example, the EU desires to increase the share of domestic production of the hydrocarbon energy it consumes. However, production growth within this generally downtrend sector (IEA, 2018: 204) would center on unconventional fuels, which could only compensate for declining conventional natural gas production (European Commission, 2014: 13). China, as well, pursues domestic energy production and ownership in joint-venture energy projects abroad. An expert from a Russian energy sector consulting firm (A3) describes that China accepts only projects where it can itself participate in production of the energy it imports. CNPC (2017a: 13) states that Yamal LNG is "*an important stronghold along the Ice Silk Road*" and that it is "*the largest overseas oil and gas cooperation project that CNPC has participated in under the Belt and Road Initiative*". Using the world "*stronghold*" implies geographical control. According to Chung (2017: 2), diversity of energy supply for China is one of the core-objectives of the program. CNPC (2017b) supports this claim by stating that "*LNG delivery from Yamal to China will be of great significance to China's efforts in accelerating the restructuring of its energy mix and safeguarding energy security*".

Since access to resources can become limited, energy security is essentially related to variety of risks in this frame. Five types of risks are considered: availability risks, market risks, technical risks, risks related to acceptability, and geopolitical risks. The first mentioned type include risks to physical availability of energy resources, of which CNPC (2017a: 15) provides an example: In order to reduce air pollution in a number of urban areas in China, the government carried a program to promote natural gas and electricity as alternatives to coal consumption. This resulted in a temporary shortage of gas supply in 2017. It also caused a market risk, as the price of LNG hiked. An interview expert, a CEO of a state-owned gas company (A7), explains that the EU in turn has witnessed low utilization rate of its LNG terminals due to high prices of LNG in Asia. This has partially forestalled the Union's action toward its target of reducing supply dependency on Russia (see European Commission, 2014: 2). A typical example of a technical risk in the data is infrastructure failure. The frame considers that after the Fukushima accident in 2011, an acceptability related risk led Japan to agree phasing out nuclear energy since the public opinion turned negative toward it.

Geopolitical risks to energy security dominate the Neorealist importer frame in quantity. The geopolitical risk discourse mostly centers on Europe's dependency on Russia's supply of natural gas.

As the supply for Europe highly concentrates on one supplier, it is seen as the primary source for vulnerability in this frame. This condition spurs European actors to perceive Russia as the ultimate source for threats to energy security. Even though the European Commission (2014) does not literally refer to Russia as a threat in its Energy Security Strategy, multiple experts verify such framing. For example, an interview expert (A11) states that Chinese ownership in JSC Yamal LNG entails that "*Russia is very unlikely to do anything to undermine energy security*". This implies that in other conditions Russia would be more likely. Furthermore, in the Energy Union Package framework strategy, the European Commission (2015: 7) adds that it will consider "*reframing the energy relationship*" with Russia "*when the conditions are right*". Instrumental use of energy in foreign policy is a common energy security threat that the EU considers. The European Commission (2015: 6) practically refers to Russia as a part of a group, and states that "*energy policy is often used as a foreign policy tool, in particular in major energy producing and transit countries*." Multiple interview experts consider that Russia could use energy to achieve geopolitical targets.

Likewise to the EU, Chinese actors relate geopolitics with energy security. Bertelsen and Gallucci (2016: 241) describe that China's Arctic interests can partially be explained with supply security for energy resources, feeding the country's manufacturing-based economy. In addition, China pays effort to develop marine trade routes, including the NSR. An interview expert (A2) claims that the route would provide China an access to the Atlantic Ocean beyond the geopolitical power of the United States, active in the Pacific coast of Asia. In this context the CNPC's (2017a: 13) discourse on Yamal LNG's significance for China's energy supply becomes inevitably related to an Arctic strategy aiming to bypass the geopolitical power of the United States. Furthermore, both CNPC and JSC Yamal LNG highlight the China–Russia energy cooperation in the project, which is considered to allow CNPC to become "*a frontrunner in the resource development in the Arctic*" (CNPC, 2017a: 13).

Oppositely to the Neoliberal economist frame (see section 5.1.3.), this frame considers that addressing energy security actively is needed. For example, European Commission (2016: 10) states that "*the fact*" is that "*the market does not fully reward the security-of-supply benefits of gas stored for crisis situations*". Reduction of vulnerability is sought as a response to risk.

The primary energy security target for the EU is to reduce dependency on Russia's energy supply. This reflects the Neorealist perception of other states as sources of risk. Consequently, the primary practices suggested in order to improve energy security are diversification of supply sources, delivery routes and fuels – as in the Neorealist producer frame. The EU considers LNG as an option that

resonates with all the above factors. Expanding LNG infrastructure network allows regasification of container-movable LNG and connects more separate regional gas markets, which are pipeline-dominated. The European Commission (2016: 2) advocates LNG especially for four East-European member states, who are regarded as "*heavily dependent on a single supplier*". In addition, the EU sees energy saving as beneficial for energy security and suggests reducing the total volume of import energy by increasing energy efficiency. A more integrated foreign energy policy of the EU is aimed to address otherwise potentially underdog positions of individual member countries in energy dialogue with Russia.

Another concept in the EU's energy security policy, which is maybe more inward-looking, is called "resilience" – the ability to resist disturbances. This frame considers that higher resilience can be achieved by restructuring the energy system by infrastructure development. The EU seeks to increase capacity for energy storage and strengthen gas transmission links between member countries (European Commission, 2014: 3–4).

Generally, the Neorealist importer frame considers energy security and climate change mitigation as contrary directions of energy policy. As with the Neorealist producer frame (see section 5.1.1.), the level of social and technological development is considered insufficient to allow transitioning to a renewable energy-based energy system. This argument is often explained with operational instability of electricity grids. They are not considered to suit extensive penetration of renewable energy without support power from other sources. Also, LNG is considered to become the primary energy source for ship propulsion, which would lock-in the energy system to fossil fuels for a certain period of time. Again, other sources for propulsion are considered as technologically lacking. The frame adapts a naturalist stance on energy systems: A transitioning system should provide close to the same services as today's fossil energy-based system provides.

However, energy technology development is seen as beneficial for energy security, and renewable and nuclear energy production are regarded as central measures for increasing domestic energy production in this frame. The European Commission (2014: 7) considers the EU's emission trading system as a potential mechanism to drive higher energy efficiency. The EU also claims that if infrastructure lock-in is actively addressed in energy policy, it will not become a problem with natural gas. According to the European Commission (2016: 11–12), "*the EU should continue to support the growth of LNG as an alternative fuel where it replaces more polluting conventional fuels and does*

not take the place of renewable energy sources, consistent with sustainability goals". The pipeline infrastructure could also be used with biogas or synthetic gas derived from excess electricity.

Nevertheless, the EU considers that a share of fossil fuels in energy production is still needed at least in short and medium terms. A small share in the energy mix is not considered to undermine climate policy. Xu (2016) claims that energy transition in China should come "*almost half a century*" later than in developed countries – in this case implying that China is not one.

5.1.3. Neoliberal economist

The Neoliberal economist frame builds up on the ideology of liberalism. This is most noticeable with regard to the frame's understanding of the economy and politics. Like Bellamy (2015: 27) describes the liberalist role of the state, the frame considers that the state should remain only as a facilitator of social interaction instead of possessing control over social institutions. In this frame, economic actions are considered to be "other than political" (see Stephan et al., 2013: 68), reflecting a traditional understanding of politics. It places politics in institutions such as the state and commissions, and in between state relations (Stephan et al., 2013: 69–70). Political attempts to intervene the economy are considered to result in instrumental treatment of individuals, as they are furthered to serve social purposes possibly against their own will (Bellamy, 2015: 30).

Followingly, since energy projects are developed and operated by commercial companies, they are fundamentally seen as depolitical – private matters of the companies owing property rights guaranteed in legal justice. Thus, an interview expert, a Senior Adviser of a Financial research institute (A9), describes that economic motives guide all upstream natural gas developments. The same rationale applies to the Yamal LNG project as well, as argued by an interviewed stakeholder (A6). He claims that the reasons behind the establishment of the project were purely economic, and that "*Novatek notably operates on commercial grounds*", as far as he knows the company. Other companies Novatek picked to join the project were chosen based on commercial attributes. Two expert sources (A2; Bros & Mitrova, 2016: 9), describe that for TOTAL S.A., Yamal LNG granted an opportunity to develop business. Reflecting this perspective, the Novatek CEO Mark Gyetvay (2018) states, when interviewed about the financial sanctions imposed over the company by the United States (Novatek, 2019: 62), that the company has "*always raised the question that why is*

Novatek in the list of the sanctions", since "*it is not a state owned enterprice*" but "*a private company*".

The frame alludes that the Yamal LNG project correlates with the political strategies of Russia and answers to many state-interests, but this falls more on coincidence than causation. When describing the relations of the state and Novatek, a stakeholder (A6) argues that "*Russia operates in its own way*". The frame considers that good relations to the state are required to be able to operate large-scale business in Russia – especially in the energy sector. Followingly, alleged close relations of Novatek to President Putin, through the CEO Leonid Mikhelson and a major shareholder Gennady Timchenko, are seen as an advantage for business. In turn, the central role of energy companies in Russia's Arctic strategy (see Russian Federation, 2013) is explained with natural geography by an expert (A9): The Arctic region happens to hold large hydrocarbon resources, and thus their extraction is a part of the region's development strategy. A stakeholder (A6) considers that many of these resources, situated in remote regions, have been previously inaccessible, but now LNG technology and Arctic shipping allows to tap into them. However, the potential benefits of exporting LNG via the NSR depend on how suitable it becomes for navigation. An expert (A9) concludes that after all it is not a requirement for successful operation of the project. Furthermore, a stakeholder, CEO of a private ship engineering company (A8), expresses doubt over wider utilization of the route. He suspects that the route's governance might be incompatible with shipping companies' operational practices. In addition, weather and ice conditions might cause variation in travel times, and thus uncertainty over the timespan of freight delivery. According to him, ship owners have skeptical attitudes toward traveling in Russia's Northern territorial waters.

Conclusively, the Yamal LNG project is considered almost solely in commercial and economic means. When asked about benefits of the Yamal LNG project, three experts (A1, A2 and A9) account them to shareholders. An expert (A9) and a stakeholder (A8) add that also contractors benefit. According to A8, to his understanding the project area was "*uninhabited*" and therefore the project does not bear any negative consequences. A9 considers that individual energy projects are only trivially related to larger issues – namely energy security, climate change, and the NSR.

However, economic policy makes an exception to the frame's understanding of the "depolitical" economy. For example, Russia's entrance in LNG markets as a producer was considered to be led by a motive of securing overall market position in natural gas. Literally, the Energy strategy of Russia for the period up to 2030 (Ministry of Energy of the Russian Federation, 2010: 79) addresses that

LNG projects are "*primarily aimed at enhancement of Russia's positions on the foreign market*" and that they "*will make it possible to enter the markets, which are absolutely new for Russia*". Multiple interview experts admit that the country's national economy relies considerably on energy export revenue, and therefore entrance to the growing LNG market was considered to be required. However, they do not think that it should be considered as a matter of security.

Despite seeing not much in common with the Yamal LNG project and energy security, the frame recognizes the latter as a separate issue. In this frame, the concept of energy security adopts a SOS perspective: Securing the supply of energy with acceptable financial cost is a relevant question for net-energy importer countries, who have limited domestic energy production.

The Neoliberal economist frame considers that the arena where issues regarding energy are effectively addressed, is the global energy market, if it can function independently. Basing on economic liberalism, the market is considered as politically relativist sphere, where subjective needs and desires are treated legitimately and fairly, regardless of values and ideologies (Bellamy, 2015: 28–30). Demand and supply are considered as the primary drivers of the market. Since access to energy is provided by the energy markets for countries who lack sufficient domestic production, increasing supply is supposed to improve availability and price. Therefore, all energy projects are considered to increase energy security, in hand to hand with total supply. This market-focused concept of energy security reflects, for example, in TOTAL S.A.'s (now ex-)CEO Christophe de Margerie's (2014b) statement: "*Long term project[s] are good for the world, are good for the balance between offer and demand. We need gas, we produce gas*."

Regarding the impacts of the Russia–West foreign political relations to the Yamal LNG project, de Margerie (2014b) also states that "*I think that the industry, companies, are sometimes good element to help people to understand better each other, and to understand the benefit we have from each others*". This implies that following commercial logic can at least occasionally bring benefits, which could not be achieved if "politics" were not put aside. The idea of "political forces" taking control of the "depolitical" economic domain by questioning the legitimacy of the value-relativist market, is highly apparent in this frame. When energy becomes securitized with "political" consideration, energy security problems build up. For example, an interview expert (A9) reasons that if a share of Yamal LNG's production is earmarked to China due to CNPC's participation in the project, a relatively lesser share of the total output will be freely available. Earmarking decreases the liquidity of markets, thus making them less efficient to address demand.

Nevertheless, the frame considers that wider adoption of LNG would generally reduce the role of politics in energy and improve energy security. The LNG market structure is regarded as the primary reason for this, since more and more often LNG is traded with spot-pricing, and moved and sold without continental limits (Bridge & Bradshaw, 2017: 215). An expert (A7) considers that with LNG producers are not physically able to control energy flows and determine prices, which is why lesser power dynamics are related to LNG than pipeline transmission. The frame tends to suggest that regarding the energy security of LNG, the origin of gas can be ignored because of this transmission structure.

Furthermore, the Neoliberal economist frame considers that liberalization of the energy markets increases energy security, as suggested by Goldthau and Witte (see 2010: 3–5). Energy projects such as the Yamal LNG, bound on international cooperation and primarily operated by private companies, are considered to improve energy security and generate mutual benefits for both energy importers and exporters. An interview expert (A11) suggests that corporate involvement in energy projects raises threshold for selfish actions that might undermine security. To conclude, the Neoliberal economist frame does not perceive energy security as a zero-sum game of geopolitical contestation, but a mutual interest pursued with fair commercial cooperation.

Regarding the future of energy, the Neoliberal economist frame lets the market guide vision. As the global demand for natural gas is forecasted to grow (IEA, 2018: 174–175), increases in supply are "*highly welcomed in many places*", as stated by an expert (A9). An essential implication in this frame is that developing countries, with outpowering demand for energy, will determine how the future energy system will look like by steering the market with their demands. This viewpoint is value relativist in nature, since it does not evaluate the desirability of outcomes. Instead, it only considers that all desires should be judged equally regardless of their quality (see Bellamy, 2015: 30). Followingly, also energy transition as a method of climate change mitigation becomes juxtaposed to all other policy objectives. As an example of this ethical hierarchy, the European Commission (2014: 12) notes that renewable energy is feared to destabilize energy markets. In case the reasons for such concerns are non-parallel with transition, for some, the ends do not justify the means.

However, the frame considers that a trend toward energy transition is taking place. A quality shift in energy demand has been reported to occur, at least in certain geographical areas. A stakeholder (A6) and an interview expert (A7) report that certain political groups and parties have emerged to oppose

investment in hydrocarbon technologies – primarily this is visible in regional administration level politics and in the civil society. These groups prefer compatible technologies with a low-carbon energy system. A stakeholder (A6) assesses that this shift has started to diffuse into developing Asian countries as well. In long-term, LNG could also face opposition as being too GHG intensive source of energy, an expert (A7) concludes.

The market is considered to response in this shift in demand, seeking to find an economic equilibrium. Thus, supply is assumed to adapt to a renewed mode of consumption.[19] Additionally, the frame considers that companies must adapt to consumer preferences in order to retain acceptability of business. In this sense, the civil society utilizes power to shape the economic. An example of this is provided by a stakeholder (A6): According to him, Russian gas companies follow the industry standards of auditioning and reducing fugitive methane emissions in their production chain. The saved gas resulting from this reduction of waste increases total production output. Thus, this efficiency improvement is also economically just.

The Neoliberal economist frame reflects a theoretically oriented understanding of technological progress: It is considered as an exogenous process, where technological substitution realizes through price adjustments, reflecting traditional models of neoclassical economics. The actual micro-level dynamics of technology change is left out of scope (see Geels, 2010: 497). Hence, energy transition is considered to take place when economic competitiveness of alternative technologies and practices outstrip their fossil fuel intensive contestants.

Since the frame trusts in this ontological (see Geels, 2010: 496) process of technology substitution, it does not perceive path-dependency and lock-in problematic, even though they shape socio-technical transitions (see Geels, 2010: 495). Carbon intensive technologies, which may drive transition into negative pathways, are considered to become displaced as soon as energy transition-compatible competitive technologies and practices emerge.

An open-minded stance toward natural gas as a solution to GHG emission reductions, is a resulting manifestation of this approach to energy policy. The data suggests that natural gas is often regarded as less GHG emission intensive source of energy than other fossil fuels, and therefore, is seen potential for displacing more intensive sources. In this frame, two prevalent themes related to climate

[19] However, the European Commission (2014: 14) underlines that energy system change "*will not happen*" without stimulating new technology development.

change are tied to this argument: GHG emissions could be reduced with natural gas by substituting, first, coal in Asia and, secondly, heavy fuel oil in marine shipping. Because of this, the Yamal LNG project is considered as beneficial for climate change mitigation – but however, only in marginal scale since it is a single project.

The Energy strategy of Russia for the period up to 2030 (Ministry of Energy of the Russian Federation, 2010: 83) draws a vision of "*transition of the world economy and energy sector to the new technological level characterized with high energy efficiency of business and extended use of non-hydrocarbon energy resources*". Foreign demand for Russia's natural gas is considered to decrease in such scenario. In addition, two Russian interview experts (A1 & A3) cautiously consider that Russia has some underlying potential for climate change mitigation and energy transition. However, one of the two experts (A1) consider it to be constrained by a sort of a resource curse. He claims that measures toward climate change mitigation and energy transition "*bumps on the availability of huge resources of cheap gas*". Nonetheless, unpreparedness is not considered to cause any risk for Russia in near future. An expert (A9) contemplates that climate change related financial risks to natural gas projects are still considered marginal.

5.1.4. Environmentalist

The Environmentalist frame questions the traditional notions of energy security. Numerous data sources engaged in the frame perceive energy security and climate policy as inseparable issues. An interviewed stakeholder, a Program Leader of an environmental NGO (A5), states that climate change should be considered in practices aimed to address energy security.

The Environmentalist frame perceives modern societies as dependent on excessive energy consumption, which is maintained by corporate actors, such as oil and gas companies, automotive industries, and agricultural corporations, who benefit from excessive consumption of fossil fuels: They lobby for "security" provided "only" with fossil fuels. If other modes of energy production and consumption were adapted, they claim that the result would be "insecurity" with economic dislocation and deprived growth (see Levy & Spicer, 2013: 663). As a consequence, governments are motivated to follow corporate interests with energy security policy.

Thus, the Environmentalist frame perceives conventional energy security as a safeguard for growth-dependent fossil capitalist systems (see Mitchell, 2009: 400; Yergin, 2008: 14–17), driving energy policy into the opposite direction than climate change mitigation would require. This is one reason why the frame sees climate change mitigation fundamentally as a political struggle (see Burke & Stephens, 2018: 80), as prospects for transition are considered to be available. According to Greenpeace International, Global Wind Energy Council and SolarPowerEurope (2015: 9), "*if we remain dependent on fossil fuels in the pursuit of energy security, the result will be a potentially catastrophic spiral towards increasing greenhouse gas emissions and more extreme climate impacts*". In addition, the NGO and its co-authors (2015: 214) state that hydrocarbon resources are "*larger than our climate can cope with*", implying that concerns over resource scarcity are unjustified. Also the EU recognizes that some measures intended to improve energy security may extend fossil fuel use (see European Commission, 2016: 2).

Contrarily to the traditional notions of energy security, the Environmentalist frame considers climate change as the greatest threat to security. It is insistently related to energy, as it ties to the patterns of extensive consumption of fossil fuels (Bridge, 2010: 523). If the consumption continues, the world is declared to face a climate catastrophe (see Levy & Spicer, 2013: 663–664). Greenpeace International (2013: 7) calls for a fossil fuel phase-out: "*either replace coal, oil and gas with renewable energy, or face a future turned upside down by climate change*". Multiple stakeholders engaging in this frame address that climate change impacts would also concern the Arctic region and, thus, the Yamal LNG project. They claim that sea level rise and diminishing permafrost are climate risks, which could potentially undermine the project. According to Bellona's (2019) estimation, these risks have been left largely unconsidered.

Moreover, the frame considers Russia as an irresponsible actor in regard to climate change. Extraction of hydrocarbon resources in the Arctic area and exporting them via the NSR is labeled as ironic and shameful, since such has been made possible largely by climate change, resulting from the same process of extensive production and consumption of fossil fuels. Russia's burden for climate change is considered even double of that what is auditioned for the UNFCCC's framework Paris Agreement (see United Nations, 2015b), since Russia is a net-exporter of hydrocarbons.

As a solution to climate change, the frame advocates a transition into a fully renewable energy-based energy system. This system should not be perceived as a "decarbonized" copy of today's hydrocarbon-based energy system that provides similar services and sustains the same societal

structures. Instead, the frame considers that a transitioned system would be different in quality. For example, the European Commission (2015: 2) visions itself as an "*Energy Union with citizens at its core*". It states that its current "*economy where energy is based on a centralised, supply-side approach and which relies on old technologies and outdated business models*" is "*driven by fossil fuels*". Such system needs to be "*moved away from*", by "*citizens taking ownership of the energy transition*". A transitioned system would be characterized with new technologies and a market structure, which engages citizens and consumers (see European Commission, 2015: 2). Some actors go even further to emphasize less production and consumption, localization and environmentally friendly land use, resembling the Sustainable lifestyles imaginary presented by Levy and Spicer (2013: 665), which is contrary to consumerism, careerism, and sustainment of current lifestyles.

Some advocates in the Environmentalist frame place quality requirements for the transition: It should be a "just". The concept of just transition refers to social justice aspects of energy transition (see Sovacool, Burke, Baker, & Kotikalapudi, 2017: 677). Friends of the Earth Germany, Heinrich Böll Stiftung, & Misereor (2017: 17) underline that structural change resulting from energy transition should be guided "*democratically*", ensuring that change does not fall on the "*detriment of the weakest*". Arguably this statement refers to the disproportionate impacts of climate change, most harmful for the most vulnerable who conflictingly contributing the least to the problem (Tokar, 2015: 2). Also Greenpeace International, Global Wind Energy Council, and SolarPowerEurope (2015: 9) call for retraining of labor force into renewable energy industries, as a coal phase-out would result in loss of jobs. However, in this frame, development of renewable energy is considered essential for sustainable development, providing energy access for millions of people.

The Environmentalist frame delegitimates such approaches to climate change mitigation that overly rely on the market. Friends of the Earth Germany et al. (2017: 7) abates policy reliance on proceedings of renewable energy and the falling rate of increase in energy demand to "*business as usual*". Attempts to shape the capitalist economy into a "*green economy*" – a mechanism that would implement systemic change to climate and environmental sustainability endogenously – are considered faulty, just as excessive focus on technology development. Market-based approaches to transition are claimed to ignore the power of backfire forces, such as resisting incumbent political actors. In turn, the frame opts for political instruments: Governments should act with regulation and support to advance energy transition. One such option could be moderation of hydrocarbon demand, which the European Commission (see 2014: 7; 2015: 12) discusses as a potential energy security measure as well.

As the Environmentalist frame depreciates climate policy shaped by conventional energy politics and the neoliberal notion of the market, which could be argued as "post-political" approaches to climate change mitigation (Swyngedouw, 2010: 215–216), it is skeptical toward using natural gas as a mean to reduce GHG emissions. According to an interviewed stakeholder (A5), this is against the hopes of the Russian government, who wishes that natural gas could have a role as a transition fuel in displacing coal. After all, the government is considered to fear the risk of decreasing foreign demand for hydrocarbons as a result of energy transition. The Environmentalist frame acknowledges the considerable fugitive methane emissions related to the production chain of natural gas, which increase the fuel's global warming potential during its lifecycle. For example, regarding Arctic shipping, a study conducted by Klimentyev et al. (2017: 58) of WWF Russia claims that LNG propulsion would reduce equivalent carbon dioxide (CO_2e) GHG emissions only by 8 % compared to heavy fuel oil due to higher fugitive emissions in ship engines. Secondly, choosing something else than a transition path without a full fossil fuel phase-out is considered to cause path-dependency, which extends hydrocarbon consumption in time. In most cases the frame discusses all fossil fuels as a unite group. As Greenpeace International, Global Wind Energy Council and SolarPowerEurope (2015: 214) note, "*decisions about opening up new oil, gas and coal mines lead almost certainly to a 'lock-in' situation*". In turn, limiting and abstaining financing for fossil fuel projects is highly advocated.

5.2. Power and contestation over the meanings of energy

Analysis based on the neo-Gramscian theoretical approach suggests that hegemony constitutes over the field of the Yamal LNG case. Section 5.2.1. shows that a group of government and business actors form a core alliance within the historical bloc of the Yamal LNG case field. The section describes how this group, fundamentally based on mutual dependencies between its actors, has the highest coercive power and dominates the economic dimension. It also shows how these actors, having specialized roles, legitimate each other's actions with discursive, organizational and material support – thus making the core alliance a distinct group in the case field.

Opposition to the meaning of production set by the core alliance is examined in section 5.2.2. The section describes strategic action against the historical bloc that is taken by the actors of the subaltern. Primarily, their strategies build upon two arrangements: First, on transnational organizational and discursive alliances between actors and, secondly, on discourses and arguments that the core alliance and other powerful actors consider legitimate, but which are turned to promote reform.

Section 5.2.3. describes the historical bloc's strategic resistance against opposing action. These include both coercion and accommodation. With accommodation, the historical bloc integrates most of the challenging agendas of the opposition into the hegemonic rationale. This is done with ideological leadership taken by various non-Russian corporate actors, industrial organizations and IGOs, forming a "leading class" in Gramscian terms (see Gramsci, 1999: 148–161; Haas, 2019: 67).

With careful alignment of material, organizational and discursive arrangements, the historical bloc projects a certain "reality" that limits prospects for opposing action. The subgroups may find such cognitive frames that would fundamentally best serve their needs incoherent with their perception of reality. As a result, they majorly choose to consent to the hegemonic rationale, as it appears unavoidable in any case. Section 5.2.4. describes how the subgroups adopt the core alliance's claims. Ultimately, the historical bloc achieves consensual legitimacy of the subaltern. For other actors, the civil society's consensual support makes the hegemonic rationale seem as a general interest. The core alliance however, systematically benefits the most from the hegemony, whereas the subgroups of the historical bloc have very limited chance to achieve their objectives. Table 3 summarizes the results of the analysis based on the neo-Gramscian approach.

Table 3. *Summary of the results of the analysis based on the neo-Gramscian approach.*

	CORE ALLIANCE	CONTESTING SUBGROUPS
ACTORS	– Russian federal government – TOTAL S.A. – Novatek – CNPC – Silk Road Fund – Industrial organizations	– Russian environmental NGOs (A4 & A5) – International environmental NGOs – Local indigenous peoples – International development NGOs
INTERESTS	– Ensure Russia's export dependent energy security by developing LNG production – Develop LNG business and competitiveness – Export energy to East Asian markets	– Phase off fossil fuel production and consumption – Adopt renewable energy transition – Mitigate climate change – Protect local environment and traditional indigenous culture
STRATEGIES	– **Coercive control** over opposition of the civil society – **Accommodation of claims**, turning them to benefit the core alliance's interests, by 1) arguing that natural gas should be a part of a low-carbon energy system and, 2) expanding the meaning of energy transition to include other environmental and social aspects	– **War of position**: build alternative cores of power with allies where contestation is fruitful – **Passive revolution**: align own interests with the core alliance's interest and try to assure that systemic change is inevitable
DISCURSIVE ARRANGEMENTS	– **Issue framing using the Environmentalist frame**, arguing that natural gas is "low carbon", technically required for energy system operability, and a solution to fast reduction of GHG emissions – **Adopting environmentalist rhetoric** and using it misleadingly – **Issue framing using the Neoliberal economist frame**, seeking to equate climate change with social developmental issues such as energy poverty	– **Issue framing using the Neoliberal economist frame** to appeal to neoliberal actors, arguing that energy transition is economically beneficial and a solution to global development issues – **Issue framing using the Neorealist importer frame** to appeal to energy importers, arguing that energy transition benefits energy security – **Issue framing using the Neorealist producer frame** to appeal to the Russian government, arguing that physical constraints to resource production are a reason for reform
ORGANIZATIONAL ARRANGEMENTS	– An alliance consisting of multinational actors with specialized roles creates transnational consistency, helping to project meaning as "universal" – Lobbies promoting the core alliance's interests – Assuring legal rights for action by following rules	– Transnational cooperation of NGOs and IGOs – Alliances with other civil society actors – Collaboration with green niche industry and the Green political movement – Publishing legally nonbinding rules and guidelines
MATERIAL ARRANGEMENTS	– Promise to improve the technological condition by reducing fugitive methane emissions – Existing natural gas infrastructure creates path dependencies	
CONSENT TO HEGEMONY		– Russian environmental NGOs accept the societal model in which energy security guarantees societal welfare – Russian environmental NGOs perceive the government's policy of the Arctic as a region becoming a frontier for hydrocarbon development as an inevitable reality – Environmental NGOs allow natural gas production and consumption to a certain degree, incorporate it to their transition strategies, and believe that technologies improve – NGOs legitimate the core alliance's rhetoric of natural gas as "low-carbon", "clean", "green", and "the last fossil fuel" etc. – Phasing off natural gas remains a question to long term future

5.2.1. The government and energy companies form the core alliance in mutual dependence

The government and the JSC Yamal LNG consortium energy companies, including their subsidiaries, form the core alliance of the historical bloc that is found in the case field. In accordance with Geels (2014: 26), the core alliance is integrated due to mutual dependencies between its actors. On one hand, the government depends on energy companies that secure funds for the state, and on the other, the companies depend on the state's authority and political relations.

However, also personal relationships and discursive arrangements that are subjected to international political arenas, fortify the core alliance. Basing on previous empirical findings, Geels (2014: 26) suggests that policymakers and incumbent corporate actors often form close alliances. This is particularly true in the Yamal LNG case, as a major shareholder of Novatek, Gennady Timchenko, is considered personally close to President Putin (Overland et al., 2012: 145). According to an interview expert (A3), he had entered negotiations with the Novatek CEO Leonid Mikhelson and the Russian President to establish the Yamal LNG project. Multiple experts (A1, A2, & A3) confirm this organizational alignment, where energy company executives are in close vicinity to the government.

Beside working together jointly in the Yamal LNG project, the actors of the core alliance give public discursive support to each other. For example, in 2017, during an international Arctic forum in Arkhangelsk, President Putin (2017c) discussed the Yamal LNG project as an example of the way how "*all countries have the right to work*" in the Arctic region. This relatively liberal discourse supports commercial activity and gives credits to foreign companies participating the project. CNPC (2017b) has utilized similar discourse, using the implementation of the Yamal LNG project as an example of successful international cooperation, framing China's foreign policy as neoliberal and interested in mutual economic benefit. Such neoliberal rhetoric fortifies the power of firms (see Geels, 2014: 27). In response, Novatek's CEO Mark Gyetvay (2018b) has joined the discourse claiming that energy security issues have been politicized against Russia (see section 5.1.1. for reference) and CNPC (2017a: 13) uses a rhetoric that is positive toward the Russian government for its policies of developing the NSR.

Nevertheless, meeting interests is the primary bind between the government and the energy companies. Section 3., *Yamal LNG*, describes the interests, competencies and deficiencies of the core alliance actors. However, to summarize shortly, the government's interests in Yamal LNG are related to ensuring Russia's energy security. Additionally, the project serves the Energy Strategy of Russia for the period up to 2030's (Ministry of Energy of the Russian Federation, 2010: 27) target of augmenting state-private partnerships in the energy sector, "*particularly in construction and modernization of energy infrastructure and development of innovations*". Two data sources (A3 & A11) suggest that the government wanted to partner with a private consortium after Gazprom failed to implement an equivalent project in the Yamal Peninsula. Moreover, corporate actors of the core alliance are interested in financial profits and increasing their competitive advantage in global energy markets. However, CNPC makes a small exception to this, since additionally it reflects the state

interests of China, which are essentially related to SOS and geopolitical competence (see sections 3.1.1. and 3.1.2. for reference).

When the core alliance counters opposition against the hegemony, its actors take quite distinct strategic roles. Naturally, the state possesses the highest coercive power (Levy, 2008: 951). According to an article included in this study's data (Bros & Mitrova, 2016: 17), the state's control over Russia's energy sector has increased. Additionally, via President Putin, the government widely expresses its stances in international forums where energy issues are discussed. Two experts (A3 & A5) claim that it seeks to generally delegitimize renewable energy. As shown in section 5.2.3., the government also engages in discursive action by framing natural gas as "clean" and "green" fuel for international audiences and by trying to shift focus away from climate change to energy poverty and protection of the ecological environment. The data in this study suggests that the regional government of YNAO follows and executes the federal government policies: "*The mission of our region is to effectively produce hydrocarbons*", said the governor of YNAO Dmitry Artyukhov (2018) in a press conference.

In turn, TOTAL S.A. holds a top position in the leading class in Gramscian terms, highly contributing to the strategic action against energy transition that is described in section 5.2.3. TOTAL S.A. also pays great effort in deploying organizational strategies that function as "evidence" of the corporation's contribution to climate change mitigation and promote the issue in favor to the company.[20] With an embed and running energy transition theme, TOTAL S.A.'s climate strategy (TOTAL, 2018) indicates that the company is able to handle well public relations regarding the theme. Other actors show lesser strategic capabilities in handling public relations in this area, which suggests that TOTAL S.A. leads the process of discursive accommodation regarding the energy transition theme in the Yamal LNG case. This result is in line with the understanding of the company as a source of gas-industry expertise for other members of the JSC Yamal LNG consortium (see section 3.2. for reference). As an international corporation, TOTAL S.A. is also the best-equipped of all actors to counter the opposition's strategy of war of position, which seeks to build transnational alliances (described in section 5.2.2.). It places Yamal LNG in a central part of its strategic response to energy

[20] For example, it has established a number of partnership projects appealing to and partnering with civil society actors (e.g. the "*Clean Gas Project*" (see TOTAL S.A., 2019: 106) and "*Total Access to Energy program*" (see TOTAL, 2018: 43)). In addition, TOTAL S.A. funds research and development of carbon capture and storage (see TOTAL, 2018: 38) – a technology that has been considered as a technological promise of the hydrocarbon regime, which in so far has been unable to materialize (Geels, 2014: 24, 34). As a part of a group of IOCs trying to lobby for a carbon-pricing scheme (TOTAL, 2018: 14–15), TOTAL S.A. may try to demonstrate that it is prepared to face policy instruments that will negatively affect its businesses.

transition, which importantly includes growth in LNG business (see TOTAL, 2018: 27; TOTAL S.A., 2019: 8, 105).

Industrial organizations, such as the Society for Gas as a Marine Fuel and the Gas Exporting Countries Forum, and gas supplier companies, take active role in mediating the leading class' agenda downstream, as they deal with consumers and customers. Since gas suppliers posit themselves in different operational environments than producers, they also mediate between the different understandings and policies of energy security (i.e. the Neorealist producer and Neorealist importer frames, described in sections 5.1.1. and 5.1.2.). Adopting the Neorealist economist frame (see section 5.1.3.) largely allows them to do this.

It seems that Novatek, CNPC, and the Silk Road Fund have more passive strategic roles. The former seeks to depoliticize itself from all other than business related issues by seeking a status of a "*private company*", like the CEO Mark Gyetvay (2018a) words. On the other hand, regarding the economic sanctions Novatek received, its energy security related statements (see Gyetvay, 2018b) coalesce with the interests of the government of Russia. However, it remains uncertain whether this is about subjugation to state strategy or purely vested interest. The latter two participate minorly in discursive action that seeks to frame natural gas as a climate friendly source of energy (see section 5.2.3. for reference).

5.2.2. Hegemony contestation in the Russian and transnational civil society

The research interviews I conducted for this study revealed very limited direct opposition against the Yamal LNG project. One stakeholder interviewee (A8) felt that the lack of opposition has been "*strange*", since usually this kind of projects face resistance. From a neo-Gramscian perspective this may imply that hegemony is well established, since the subaltern's demands have been successfully curtailed.

However, resistance occurs indirectly and can be geographically spread across the research field. Analysis based on the neo-Gramscian approach identified two strategies that the groups of the subaltern use: War of position and passive revolution, defined in section 2.2.2., *Neo-Gramscian approach to energy politics and power*. First, I shall focus on the former, which seeks to build alternative cores of power, rather than engaging in direct resistance against the hegemony. They allow

opposing groups to organize and gain influence (Levy & Newell, 2002: 88). According to Henry (2010: 770), such strategies have brought some gains, as the government has opportunistically made concessions to transnational pressure in the oil and gas sector of Russia.

The organizational structure of NGOs that have engaged in critique toward the Yamal LNG project best manifests that the strategy of war of position is utilized by the subgroups. Some of the NGOs that operate in Russia are franchises or regional offices of larger international organizations, as discussed in section 3.3.2., *Internationally linked NGOs*. This study's data includes Greenpeace and WWF, which are international organizations with semi-autonomous regional offices in Russia. Bellona, headquartered in Norway, is also included. Its foreign operations are often related to the country's industries. Nevertheless, it has multiple foreign offices in Russia (Bellona, n.d.).

In general, the NGO sector in the Yamal LNG case shares informal relations based on mutual interests. Since most environmental organizations are relatively generalist in their environmental protection-related objectives, it is not uncommon for them to collaborate. Such alliance forging approach is, for example, suggested by a stakeholder interviewee (A5), who calls representatives and activists of other NGOs "*colleagues*" and "*allies*". On some occasions, NGOs also collaborate with other types of organizations that share common interests. This is indicated, for example, by the coauthored report of Greenpeace International, Global Wind Energy Council and SolarPowerEurope (2015), of which the latter two represent renewable energy industries – niches that challenge current fossil energy-based socio-technical regimes (Geels, 2014: 23–26).

Some NGOs with environmentalist agendas, like Greenpeace and the Heinrich Böll Foundation, actively side with indigenous peoples to support their interests (particularly Nenets). Also the CAFF (2006) report *World Reindeer Husbandry* in the data indicates that indigenous peoples' organizations engage in international cooperation. This mostly concerns their foreign counterparts, but also environmental programs funded by governments. Since discourses in the CAFF (2006) report highlight sustainability and protection of relatively low-disturbed arctic environment, this suggest that such institutions generally share mutual interests with environmental NGOs.

The power of informally and formally connected NGOs constitutes via their coordinated operations and cognitive framing. While only one directly Yamal LNG related and transnationally coordinated environmental campaign can be recognized in this study's data, it can be argued that the agendas promoted by international organizations are cognitively associated to their franchises and partners.

For example, when Greenpeace International turns against fossil fuels and promotes energy transition in its strategic report (see Greenpeace International et al., 2015), Greenpeace Russia's activism on Arctic energy infrastructure development and resource extraction becomes viewed through this lens, even though it might officially have other objectives. This way transnational ties allow environmentalists to strategically challenge unfavorable political conditions for activism in Russia (Henry, 2010: 762). In a report included in this study's data, Heinrich Böll Stiftung and Friends of the Earth International (2015: 38–39) stress that since "*the government shuts down critical voices*", "*civil society groups that might push for more sustainable sources of power are few and far between*" in Russia.

Strategic framing by the groups of the subaltern reflects the war of position as well. By choosing to frame themes and issues in certain ways, they can appeal on other groups interested in those frames (Fligstein, 1997: 399). When interests concur, new alliances can be established.

The analysis shows that the strategically most utilized frame by environmental organizations is the Neoliberal Economist (see section 5.1.3.). The primary argument they use that builds up on the frame is that energy transition is economically beneficial, whereas failing to implement the transition leads to economic damage. Renewable energy is considered as lower cost than fossil energy, and its development would generate economic growth and employment. Conservative states and companies sticking with fossil energy-based production are framed to be left with stranded assets, when energy transition advances further. The arguments used by the NGOs that promote energy transition are also prone to extensive technical and economic optimization regarding the practicalities of transition, even though the Environmentalist frame suggests that climate change mitigation is a question of political will (see section 5.1.4. for reference).

Another argument that environmental organizations often present focuses on global development, which is a topic of neoliberal international politics, as it often limits to only economic perspectives. This is indicated in the Neoliberal Economist frame, which prioritizes global development through energy cooperation before national interests (see section 5.1.3.). Environmental NGOs claim that renewable energy is an efficient solution to global developmental challenges, such as energy poverty and unemployment. While the argument may appeal to neoliberal actors, it also draws sympathy from groups that focus on sustainable development, who may be more prone toward issues regarding social development than the environment.

Some environmentalist groups also utilize the Neorealist importer frame (see section 5.1.2.). Energy transition and renewable energy production is in many ways framed as beneficial for countries concerned with energy security issues regarding energy import. The main argument for this is that domestic production of renewable energy could reduce the need for imports, thus decreasing dependence on foreign providers. Followingly, and supported with other endorsing arguments, environmentalist groups also use this argument to promote solutions to the problem of states having contrary policies regarding energy security and climate change mitigation (see Bridge, 2010: 623). Again, with this frame as well, the opposition accompanies inducements with deterrents: Greenpeace International, Global Wind Energy Council and SolarPowerEurope (2015: 214) argue that geologically constrained and finite hydrocarbon resources per se conflict with increasing energy demand. Inevitably approaching peaks of production and resource depletion are contributing reasons to begin energy transition. They (2015: 217) also claim that Russia's gas reserves have been overestimated "*by about 30 %*". A stakeholder interviewee (A5), representing an environmental NGO based in Russia, states that the country will face peak oil in 3–5 years.

Similarly, the strategy of passive revolution, which seeks incremental change through slow reforming of the hegemony (Haas, 2019: 68; Levy & Newell, 2002: 88), bases on the same arguments regarding geological constraints to resource exploitation in Russia. The claims that relate to the theme of resource scarcity bring hope for the environmentalist groups, but they resonate even more with the interests of the Neorealist producer frame – like one state source in the data confirms (see section 5.1.1. for reference).

5.2.3. Strategic resistance to opposition

The historical bloc counters opposition primarily by adopting arguments from the Environmentalist frame and introducing them in favor of the core alliance. To lesser extent, it also adopts arguments from the Neoliberal economist and Neorealist importer frames (see section 5.1. for references). Thus, the subaltern's discursive opposition becomes majorly accommodated in the hegemonic rationale and hegemony resists destabilization.

The accommodation strategy structures followingly: The "first reaction" of the core alliance to the general fact that its power and production is opposed, is to pay sympathy for the subaltern. Basically, this messages that the core alliance "is on the same side with" the opposing groups and their concerns

are recognized. The core alliance accepts that a need for energy transition is experienced and that evidence of increasing capacity of renewable energy production (IEA, 2018: 245) and climate policy (i.e. the Paris Agreement, see United Nations, 2015a) supports the idea of a beginning transition.

At first hand, this sympathy is expressed in discourses given by international gas industry actors. The grandiose words of TOTAL S.A. (TOTAL, 2018: 5) in its climate strategy frame the 21st century as "*The Electric Century*", whereas "*coal and oil drove the transformations of the 19th and 20th centuries*". The (erstwhile) Secretary General of GECF, Seyed Mohammed Hossein Adeli (2017), joined this discourse in the Russian Energy Week forum, 2017, saying that "*the advance to a low carbon society is a global movement which is going to advance its own way*"[21]. In addition, other actors follow: In the same forum session, President Putin (2017b) replied "*of course, we need to move towards transition to renewable energy so that it becomes the number one energy source*", when questioned if Russia should follow Saudi-Arabia's example of planning the future after fossil fuels. An interview expert (A11) claims basing on personal communication that also Novatek recognizes that there is a demand for emission reductions in the energy sector. CNPC, as well, accepts that energy transition concerns China too (see Xu, 2016).

However, nearly all of the above statements are followed with a "but". The core alliance actors imply that currently there are material and institutional factors that either work as barriers for transition or justify postponing action. These they frame as exogenous (and most of these are presented in the previous sections 5.1.1., *Neorealist producer*, 5.1.2., *Neorealist importer*, and 5.1.3., *Neoliberal economist*). Therefore ultimately, the sympathetic rhetoric turns into superficial expressions of understanding, accompanied with countering claims.

Beyond the general reaction to opposition, the core alliance builds two major discursive strategies, which align with the material and organizational dimensions. The first of these seeks to narrate that the relationship of energy transition and the historical bloc's production is complementary and positive. It suggests that natural gas production and climate change mitigation do not conflict – contrary to what is considered in the Environmentalist frame (see section 5.1.4.). The second strategy, in turn, attempts to expand the meaning given to energy transition. By associating interests, which are mutually shared with the opposing groups but remain irrelevant – to energy transition, it

[21] Russia is a member of GECF – an IGO promoting coordination, collaboration and member states' sovereignty of developing, preserving and using natural gas resources (GECF, 2016).

looses its original meaning and finding solutions becomes more complicated. With these strategies energy transition advocacy is made to serve the interests of the core alliance.

In the first discursive strategy, the historical bloc argues that natural gas production fits well together with increasing share of renewable energy in the global energy mix. Since the deployment of renewable energy technologies and energy efficiency improvements are considered to stimulate further electrification (see IEA, 2018: 435–436) – as noted in TOTAL S.A.'s climate strategy (TOTAL, 2018: 5), this is argued to favor natural gas in electricity generation. In turn, the previous is considered to provide prospects for business (see Adeli, 2017; TOTAL, 2018: 7; TOTAL S.A., 2019: 8–13). Electricity generation with renewable energy, which is affected by seasonal fluctuations and weather conditions, is also claimed to require backup reserve capacity, for which natural gas is presented as the best option (see Adeli, 2017; TOTAL, 2018: 33).

The above given arguments are in turn based on the extensively presented claim that natural gas is a "low-carbon" fuel that in use displaces other fossil fuels with higher GHG emission intensities. This "low-carbon" fuel argument appears in the data from CNPC (see Xu, 2016), TOTAL S.A. (see TOTAL, 2018: 27), a Finnish state-owned gas company (interview with A6), a Russian energy sector consulting firm (interview with A2), President Putin (2017b), and Novatek (see 2019: 6).

Additionally, the "low-carbon" argument is supported with a standard material resistance strategy that draws on quality improvement of the socio-technical regimes (Geels, 2014: 33). According to an interviewee (A6), both Russian and European natural gas producers increasingly audit fugitive methane emissions and seek to prevent them in production and liquefaction. TOTAL S.A. (TOTAL, 2018: 28) claims to be "*one of the ... top performers*" of oil and gas industry in this issue. Also President Putin (2017c) relies on improving technology when he speaks of environmental protection and emissions. He refers to the Yamal LNG project as an example of "*eco-friendly*" technology, which should provide a general solution to environmental issues. Yamal LNG's ESIA (Yamal LNG, 2014b: 9-20) estimates that the project's CH_4 emissions are 1,857 t/y during the operational phase.

Whereas some actors solely rely on stating the "low-carbon" gas argument, some build further policy strategy over it, suggesting that natural gas should be used as a "bridge fuel". In this strategy, rapid energy system "decarbonization" could be achieved in short term by substituting other fossil fuels with natural gas. In longer term, natural gas could be phased off, as alternative and less GHG emission intense energy sources emerge. Symbolically, natural gas could then function as a "bridge" between

today and a utopian future, where sustainable technologies are available without the cost of engaging in their active development now.

An interview with a state-owned gas company official (A6) revealed that the bridge fuel argument can leave many questions unanswered. When I asked the interviewee's vision on how the following natural gas phase out would actualize in the long term, the interviewee expressed uncertainty. My question about "*the other end of the bridge*" became responded with lengthy pondering, murmur, uncomfortable chuckle and a reply: "*Well, that's not quite clear*" (A6). However, some others deliver answers endorsed with material alignments. They suggest that biogas or synthetic gas produced with renewable energy could be used to substitute natural gas in the long term, since some of the required gas infrastructure is already in place. With additional adoption of discourse from the Neoliberal Economist frame (see section 5.1.3.), the "bridge fuel" argument is also made to appeal on economic elites, who particularly are interested in costs of different transition pathways. Opting for natural gas can be made to seem economical if there should not be any need to waste existing infrastructure. Therefore, the bridge fuel argument already offers legitimacy for maintenance of the current gas infrastructure and building new.

Moreover, it is worth to notice that, in this study's data, the "bridge fuel" argument is only used by actors who are considerably in contact with Western actors. As a contra-example, Novatek (2019: 6) literally "*disagree*[s]" with the bridge fuel "*characterization*", stating that "*natural gas … will play a major role in the future energy mix as a key contributor to meet climate change and de-carbonization goals.*" This statement is more in line with the Neorealist producer frame (see section 5.1.1. for reference) and could be argued to represent a more conservative view. In general, the research interview data suggests that if a Russian energy company does not focus particularly on European audiences, it has lesser capabilities to accommodate climate change related rhetoric in their communication. As an example of this, an interviewee (A6) told me that local Russian representatives of Gazprom in St. Petersburg had not even heard of the revolutionary "*green*" technologies that the same company had just presented to him in a Central European conference.

Occasionally, the strategic adoption of ideas from the Environmentalist frame is taken to very fine detail. For example, TOTAL S.A. declares that it prepares to cope with increasingly decentralizing electricity generation (see TOTAL S.A., 2019: 13), which happens to be an essential demand of the energy democracy movement (Burke & Stephens, 2018: 79), whose claims are included in the Environmentalist frame (see section 5.1.4.).

However, the second major discursive strategy takes a very different argumentative direction. Instead of debating on the details, it tries to shift away focus from the original topic of debate by expanding the meaning given to energy transition. There are at least three directions where discussion is steered – in order to take it to new paths.

First, when natural gas and LNG are discussed in relation to climate change, rhetorical phrases that include the words "clean" and "green" are used. Characteristic to this rhetoric is that the concepts are not given definitions, which allows open and broad interpretation of their meaning. However, both previous literature and the frame analysis suggest that the "clean" rhetoric derives from discussion regarding air pollution. Historically, it has been used by the gas industry to delegitimize "dirty" coal consumption (Ashby & Anderson, 1981: 97–98). Gas industry actors, such as the Society for Gas as a Marine Fuel, still use this rhetoric in similar contexts (Society for Gas as a Marine Fuel, 2017: 5). Occasionally, the word "green" is used as a synonym for it.

Thus, the actual meaning of these words and their context of use do not match. These environmental problems have definitive and mostly separate primary drivers (IPCC, 2014a: 44, 57). Nevertheless, the strategic mismatch can stay unnoticed for a person without expertise on the issues of climate change and air pollution, which can lead to distorted understanding. This is the window of opportunity for this strategy.

A clear example of this strategy is given in the CNPC Vice President Xu Wenrong's (2016) speech. He argues that natural gas is a "*realistic choice to a green and low carbon future*", which he backs with a number of transport and electricity generation related points. The topic appears to be considering climate change, but knowing that air pollution is a significant problem regarding fossil fuel consumption in China (Han, Zhou, Pickett, Li, & Qian, 2018: 233) reveals that Xu (2016) mixes together the two issues. According to a China specialized expert (A10), in the West, China's energy policies are often misinterpreted to be motivated with climate change mitigation, even though they primarily seek to target air pollution.[22] In addition to the Chinese actors, this discursive strategy is used by the Russian government (see Putin, 2017b), TOTAL S.A (see TOTAL, 2018: 43), Novatek

[22] A relevant and following question is then that do Chinese actors – like CNPC or the Silk Road Fund, who calls Yamal LNG as a "*clean energy development project*" (see Qi, 2017) – take advantage of this gap in Westerners' knowledge on purpose.

(with unpromising success, however) (see Novatek, 2019: 6), and a Finnish state-owned natural gas company (A6).

The second direction where energy transition discussion is steered, is the environment in general. Responsibility over environmental issues can be used to legitimate natural gas production. Again, the issue arena becomes expanded from only climate change to include other environmental problems. This strategy works in two ways: First, for those who understand the concept of environment so that it includes climate (as suggested in the Environmentalist frame in section 5.1.4.), advocacy for environmental protection can easily seem like advocacy for climate change mitigation among other environmental issues. Second, since the primary advocacy (or interest) groups for climate change mitigation often share general concerns over the environment, actors who express mutual interest on other environmental problems can appeal to these groups and have bargaining power. This may be useful at least in the context of Russian environmental NGOs, as their chances to influence the energy sector are fairly limited (Henry, 2010: 768).

Discursive arrangements in this strategy that are utilized by all core alliance actors include the aforementioned "green" rhetoric, as the word associates to environmental friendliness and sustainability. Occasionally, actors adapt the Neoliberal economist frame's rationality in giving legitimacy for commonly binding rules but being otherwise relativist toward ethical issues (see section 5.1.3. for reference). Such institutional arrangements as the Yamal LNG's ESIA (Yamal LNG, 2014b) and Russia's obligation to the Paris Agreement (United Nations, 2015a) are used this way. They function as evidence of the core alliance's commitment to climate change mitigation, even though neither one of the two concern the act of exporting hydrocarbons abroad, where consumers might not be committed. According to an opposing voice (A5), exporting hydrocarbons essentially raises the responsibility burden over climate change for producers.

The third direction steps away from the environmental issue arena but retains mutual interests with most of the opposing groups. The issues of social development and sustainable development are brought into debate, which draws sympathy from many actors of the subaltern. Actors of the core alliance try to display respect over social concerns in their policies and operations – declarations of caring over indigenous peoples' interests and rights in Arctic issues (see Putin, 2017c) and adhering to sustainable development principles and goals are common (see Novatek, 2019: 9).

What particularly stands out in the theme is how much value is given to energy poverty. Highlighting the issue, whose problem status is institutionally and materially cast in the Sustainable Development goals (United Nations, 2015b: 23) and increasing energy demand in developing countries (IEA, 2018: 40), can work as an antithesis for the discourse advocating reduction to energy consumption, found in the Environmentalist frame (see section 5.1.4. for reference). Whereas some subgroups of the historical bloc render decentralized renewable energy as a cure to the issue (see Greenpeace International et al., 2015: 3), the solution that the core alliance actors offer is natural gas.

Couple of times in the data energy poverty is interestingly turned into an explanation for energy transition. Some actors highlight the role of increasing energy demand in emerging economies as a source of energy landscape change and associate it with rhetoric found in the Environmentalist frame (see section 5.1.4. for reference). Thus, energy access appears as one driving reason for energy transition. For example, when TOTAL S.A. discusses energy "*transformations*" in the foreword chapter of its climate strategy (TOTAL, 2018: 5), it pays significant remarks to energy access, which it claims to be "*shaping the world's future*".

Ultimately, with these strategies, the historical bloc accommodates the claims of the subaltern in the hegemony and turns them to benefit the interests of the core alliance. The core alliance adopts the overall concern over climate change and the idea of transforming the energy system from the Environmentalist frame (see section 5.1.4. for reference) but gives them only secondary value after other interests – which are related to national energy security, economic profit, geopolitics, and stability of the incumbents (described in sections 3.1. and 3.2.).

5.2.4. Consent to the hegemony legitimates the meaning of production

Despite having conflicting interests, civil society groups reproduce the core alliance's agenda. This signals that hegemony is established and that these groups form the consenting subaltern. To a certain degree, they incorporate the historical bloc's strategic claims deployed to ensure the core alliance's stability (presented in the previous section 5.2.3.). Regional differences in energy security concepts mostly appear to determine which claims the subgroups adopt. Whereas Russian civil society actors echo the Russian government's claims the most, international actors, who are mainly West-oriented, adopt claims that suit importer-focused understandings of energy security.

The most incorporated subgroup actors in the hegemony are Russian NGOs, as they share the highest amount of the core alliance's claims. Two research interviews (A4 & A5) suggest that Russian environmental NGOs are quite willing to accept that fossil energy production is the basis on which societal welfare is built in Russia – as argued in the Neorealist producer frame (see section 5.1.1. for reference). When asked about the energy sector's contribution to societal welfare, it was considered "*very important in all ways*" (A4) and "*unfortunately … [a] key factor in Russian social policy*" as the revenue from energy exports provides a large share of the state budget (Simola & Solanko, 2017: 31). The interviews do not particularly suggest that this societal model should be changed – opposingly to the Environmentalist frame (see section 5.1.4. for reference).

Russian environmental NGOs are also the most positive toward natural gas. The interviewed two (A4 & A5) openly support the bridge fuel strategy that the core alliance advocates (see section 5.2.3. for reference). One (A4) frames this as a general "*Russian*" stance on the issue. The same NGO also trusts on the Yamal LNG project's ESIA's review of the projects climate impacts, which are claimed to be relatively low (Yamal LNG, 2014b: 9-5–20).

WWF Russia's report *Prospects and opportunities for using LNG for bunkering in the Arctic regions of Russia* (Klimentyev et al., 2017) indicates that the NGO is supportive toward LNG production. It suggests using LNG for marine bunkering in Arctic Russia, as its production is localized. While studying the environmental impacts of shipping, the study chooses to leave many renewable fuels that it calls "*sustainable*" out of its scope of research (Klimentyev et al., 2017: 11). While this message is welcomed by the core alliance actors, it also reflects the opinion of an interviewed private ship engineering company's CEO (A8), who foresees no future alternatives to LNG in reducing GHG emissions of marine shipping. Interestingly, a body of research indicates that sufficient GHG emission reductions in the international shipping sector cannot be achieved by transitioning to LNG propulsion (Brynolf, Fridell, & Andersson, 2014: 93; Pettit, Wells, Haider, & Abouarghoub, 2018: 303). By projecting a "*9-fold decrease in methane emissions per used [LNG] fuel unit by 2030*" (Klimentyev et al., 2017: 58), WWF Russia also legitimates the material strategy of technological improvement (see section 5.2.3. for reference).

Ultimately, the Russian environmental NGOs' understanding of the future of the Arctic region likely best indicates how the subaltern relies on the hegemonic projection of reality. The NGOs are not able to question the government-endorsed primacy of oil and gas development in the country's Arctic policy discourse (Sidortsov, 2019: 135). For example, this is seen in how WWF Russia endorses

many government claims regarding the benefits of developing the hydrocarbon resources and the NSR in the Arctic region (see Klimentyev et al., 2017). From an environmental perspective, the reported benefits are much based on arguments that the government and its private sector allies, such as the Society for Gas as a Marine Fuel (see Society for Gas as a Marine Fuel, 2017), promote.

When supply security is at stake, environmental NGOs based outside Russia choose to consent to the hydrocarbon-dominated socio-technical order, enforced by the core alliance. For example, multiple environmental NGOs consider that natural gas could be used to ensure back-up power capacity when transitioning to a renewable energy-based energy system (see Greenpeace International et al., 2015: 60; Nestle & Brugger, 2014: 21). In addition, they reassert that, in long-term, natural gas infrastructure could be used with gas produced from renewable sources (see Greenpeace International et al., 2015: 268; Nestle & Brugger, 2014: 21). This legitimates the core alliance's claim that the relationship of renewable energy and natural gas is complementary (see section 5.2.3.).

Since in the level of political declaration international environmental NGOs advocate a total fossil fuel phase out, the above practical perspective leaves far behind. Regarding how much scientific uncertainty there actually is about the climate impact of natural gas (IPCC, 2014: 527), the NGOs seem to have quite optimist attitudes on the issue, which is certainly not against the core alliance's strategy of framing gas "low carbon". In addition, the NGOs have widely adapted the "clean" rhetoric when discussing natural gas and other energy sources (see section 5.2.3. for reference). A detailed look into the energy transition strategies of the Heinrich Böll Foundation and Greenpeace International unveils that they support natural gas consumption in short term – natural gas should have a longer future than other fossil fuels, which should be phased out first. This stance reflects the Neoliberal economist frame's tendency for technical and economic optimization regarding energy transition (see section 5.1.3. for reference) and opens a window of opportunity for the bridge fuel strategy of the core alliance.

6. DISCUSSION

This section discusses the general relevance of the results (in sections 6.1. and 6.2.), limitations of the research design (in section 6.3.), and methodological weaknesses (in section 6.4.). Analyzing the cognitive frames that guide stakeholders' understandings of the Yamal LNG project in relation to Russia's energy security and energy transition brought energy security theories under empirical examination. The frame analysis mapped out a base for a further neo-Gramscian theoretical analysis of strategic action, which identified a structure of political power that efficiently obstructs attempts to replace and reform the dominant understanding of Russia's national energy that benefits certain societal groups over others. The identified frames indicate that there are differing and even contrary ways to reason about the Yamal LNG project's relationship to energy security and energy transition. Tracing these in stakeholder statements and comparing them to claims that they have made discovered that calls for energy transition, which embed demands for changing the social order, can be domesticated into compliance with the status quo.

6.1. Frames reflect interest groups and previous findings

Even though that the frame analysis in this study was conducted on an empirical basis, mainly looking at different problematizations regarding the Yamal LNG project's relation to energy security and energy transition, the found frames mostly correspond with theoretical findings in energy security literature, IR, and environmental movements research.

On one hand, the frames follow a division between energy exporter, energy importer, economic, and risk perspectives, which also stand out in energy security literature (Johansson, 2013: 201–203; Sovacool, 2011: 2). For example, echoing an energy security literature discussion (Jewell et al., 2014: 756; Sharples, 2013: 686), the Neorealist importer and Neorealist exporter frames' opposite stances toward energy transition are primarily determined by the potential impacts of renewable energy to national energy production. Despite that the Neorealist producer frame sees little risk in energy transition to Russia's natural gas exports, it suggests that if demand for Russia's natural gas decreases in Europe due to political reasons, the Arctic region, providing diversity of export, allows to compensate for it by finding new markets in Asia. Climate change would more likely benefit than trouble Russia in this strategy. This provides as well an incentive for the Russian government to support the incumbents of its energy sector (see Putin, 2017b).

The Environmentalist and Neoliberal economist frames, in turn, have deeply contrasted understandings of the relationship of energy and the economy. Briefly said, the first considers energy security as a political objective bound in centralized fossil energy systems and based on interests to protect the economy. While the frame implies that such interests in the Yamal LNG case can be partly traced to the personal relationship of President Putin and the case stakeholders (see section 5.2.1.), governments are also highly motivated to secure state competence in global markets and economic growth (Burnham, 1990: 1). These, again, are coupled with high energy consumption (see Phelan et al., 2013: 213). Instead of being wary for such energy availability related constraints that could halt a capitalist quest for infinite growth, the Environmentalist frame perceives climate and environmental change to be higher risks that have emerged as global problems (see Proskuryakova, 2018: 205–211). For the Neoliberal economist frame, politicization of energy remains mostly unnecessary, since it considers that an efficient market takes care of problems, as it evaluates them and connects demands to provided solutions. Thus, political intervention to energy markets only disturbs the pricing mechanism, which causes such energy security issues as overpricing (see Proskuryakova, 2018: 206). Dependence on individual sectors of the economy is another problem that is implied in the Energy strategy of Russia for the period up to 2030's (Ministry of Energy of the Russian Federation, 2010: 22) objective to decrease economic dependency on the Fuel and Energy Complex by diversifying the economic structure.

On the other hand, the frames found in this study reflect theoretical schools of IR and political science. They include understandings of politics that are found in neorealism, neoliberalism, and IPE (see Proskuryakova, 2018: 205–206). The Environmentalist frame also shares ideological similarities with environmental and social movements – such as the Green political, social justice, and energy democracy movements (see Burke & Stephens, 2018: 78–79; Levy & Spicer, 2013: 664; Van de Graaf & Zelli, 2016: 50). In the examples given above, the Neoliberal economist frame's understanding of energy security that puts economic cooperation before political sovereignty is rather different to neorealist political thought (see Proskuryakova, 2018: 205). Also, since the frame appreciates optimization[23] and trusts in technological substitution that should take place in future, it is against any rapid increases of political ambition in climate policy that could sanction businesses. Thus, the frame can seem compromising to actors who embed with the Environmentalist frame. This

[23] The frame's preference for optimization derives from a historical liberalist notion of the market as a mechanism for optimal development, which eliminates bad ideas and practices, as they become tested by competition. Thus, endogenous change through optimization and experimentation in the market is seen to result in fine societal progress (Bellamy, 2015: 27) and is preferred over "social experiments", where idealism is taken into practice.

frame, in turn, suggests reevaluation on how energy is securitized (see Bridge et al., 2018: 201), since the risks of climate change are largely of energy origin: Extensive combustion of fossil fuels has emitted GHGs to the atmosphere, which has led to dangerous global warming. Ultimately, this conception of energy security questions such traditional neoliberal notions of political-economic relations that place the economy as the subject of security.

By looking at stakeholder engagement with the found frames, particular groups can be connected to specific frames. Leaving out the strategic utilization of frames, it is logical to argue that their sensemaking occurs mainly via these frames. The Neorealist producer frame is almost solely accessed by the Russian government stakeholders. The leadership of Novatek also uses this frames when it engages in political debates (see Gyetvay, 2018b, 2018a). The Neorealist importer frame is in favor of the EU and Chinese stakeholders, who share similar energy security interests but have quite different starting points. Energy companies, contractors, and other businesses – as well as the Energy strategy of Russia for the period up to 2030 (Ministry of Energy of the Russian Federation, 2010), mostly follow the Neoliberal economist frame, which promotes economic and technical values. The Environmentalist frame, in turn, is represented by environmental NGOs – both Russian and international, who also network with environmental niche industries. In addition, the EU adapts this frame by drawing a vision of its energy policy, which should abandon today's fossil fuel supply based economic model (see European Commission, 2015: 2).

Nevertheless, some findings of the frame analysis differ from previous research results. Like Bridge's (2010: 523) analysis outlines, conventionally literature has given a contrary relationship to energy security and climate change mitigation. Against this notion is the Neorealist importer frame's favor for renewable energy production, which should benefit the energy security of net-energy importers. This shows that energy security is relative to societal conditions, which is why it can often be case specific. Moreover, climate change mitigation can provide an acceptable reason to reduce dependency on foreign fossil energy suppliers for concerned importers. The section 5.2.2. shows that also environmental NGOs understand this, since they effectively use it as an argument to appeal on stakeholders who are interested in SOS. Secondly, despite that the Energy strategy of Russia for the period up to 2030 has an objective to decrease the role of hydrocarbon exports for the economy and develop competitiveness in renewable energy markets (Ministry of Energy of the Russian Federation, 2010: 22), much of this liberalist vigor has been lost by now (Tynkkynen, 2016: 390). Most of the stakeholders and experts interviewed for this study have not noticed nearly any climate change mitigation related discourses in Russia.

6.2. Energy *trasformismo* secures incumbent interests

Since the groups of the subaltern majorly consent to the strategic claims described in section 5.2.3., they legitimate the meaning of production that benefits the core alliance. The subgroups' demand for energy transition, which originally withheld the requisites of phasing off fossil energy and a rapid transition to a fully renewable energy-based energy system (as in the Environmentalist frame, in section 5.1.4.), becomes accommodated in the hegemony as its meaning gets modified. In this process, energy transition is reframed as a partly hydrocarbon-based transition that is driven by economic growth of developing countries, improvements in upstream technologies, and the rise of renewable energy technology accompanied with "low-carbon" natural gas – apparently a common rhetoric within the Russian energy regime (see Sharples, 2013: 690). In turn, this framing lets incumbent actors project that they adapt to the ongoing change in the global energy landscape, even though they actively counter opposition. Thus, a *trasformismo* occurs, as the incumbents narrow down disruptive change and are able to continue energy production (Cox, 1983: 166–167) – taking place in the Arctic, regardless of increasing climate change that further changes the region's climatic and ecological conditions.

The meanings that the core alliance associates to the Yamal LNG project is where other actors of the historical bloc build their understanding of it. The hegemonic meaning of production, rationale, or "ideology" in Gramscian terms, builds upon a combination of neorealist understandings of Russia's energy security and neoliberal depoliticization of energy production (see sections 5.1.1. and 5.1.3.). While the former is of uttermost importance for the government, the latter lets energy companies and corporate actors cooperate with politically motivated actors as long as their interests concur with commercial interests. However, relativist neoliberal framings of energy policy (see section 5.1.3.) also provide the opposing groups a ground for reformist action to challenge state policies.

Nevertheless, particularly the environmental NGOs' strategies fall short in that they cannot offer any "easy" alternatives to the hegemonic reason. They hesitate to profess publicly that a future society emerging from the grounds of a fully renewable-based energy system would appear different from today's, since social systems and energy systems are interconnected (Urry, 2014: 4–5) – as described in the Environmentalist frame (see section 5.1.4. for reference). Because promoting reduced luxury in lifestyle would be risky for their public support (Levy & Spicer, 2013: 665), they need to tolerate fossil fuels in politically sensitive issues where alternative solutions are limited. Such are fruitful grounds for securitizing discourses of the incumbents. Possibly due to this political struggle, the

environmental NGOs of the subaltern are motivated to consider natural gas as the "least harmful fossil fuel". Followingly, they do not consider Yamal LNG to be as big of an issue as coal and oil developments.

Because groups who posit conflicting demands with the state's objectives regarding the energy sector face marginalization and exclusion from decision-making processes in Russia (Henry, 2010: 763–769), local environmentalist groups might principally prefer the strategy of passive revolution instead of war of position. Overall, influencing the energy sector is a significant challenge for Russian environmentalists (Henry, 2010: 768). In this sense, direct opposition may not be strategically as effective as gradual reforming through placing arguments that carefully align with hegemonic interests and rhetoric. However, passive revolution has been used very limitedly in the Yamal LNG case.

While Russian civil society groups must have the knowhow to operate in a challenging environment, the research conducted for this study suggests that overall, the civil society's expertise of energy security and energy policy regarding natural gas is quite limited. Strategically, environmentalist actors could benefit from developing an independent "common sense" of the subaltern (Haas, 2019: 68). It should adopt of a coherent concept of energy security, which links together the conventionally decoupled areas of energy security and climate change (see Bridge, 2010: 523; Bridge, 2015: 331). A "hydrocarbon superpower" (see Bouzarovski & Bassin, 2011) is not the only culturally compatible national identity that Russia could have, laying on its enormous stocks of renewable resources and carbon dioxide (CO_2) sequestration potential (see Tynkkynen, 2019: 124–125).

Potentially the most disadvantaged group in the Yamal LNG historical bloc is the local indigenous population. They bear the direct consequences of such a feedback loop in which increasing global warming stimulates hydrocarbon extraction to expand, essentially contributing to the acceleration of climate change and degradation of the Arctic environment. Along the deterioration of traditional culture, valuable knowledge of resilient and environmentally sustainable living in YNAO becomes lost (Forbes et al., 2009: 6–7).

Overall, the Yamal LNG project demonstrates Russia's capability to implement technically challenging energy projects under international pressure, namely the US-imposed economic sanctions, in response to the threat it sees in increasing European concern over climate change and energy security. However, Russia still depends on the EU's energy markets (Kratochvíl & Tichy,

2013: 391). Considering the extreme global political challenge to get hydrocarbon producer countries committed to energy transition, which increasingly shifts the focus of environmental policy toward geopolitics, the EU and other climate concerned nations should reconfigure their political-economic relations with Russia to support energy system transformation (see Tynkkynen, 2019: 125). Acknowledging the incumbent political strategies for framing natural gas and LNG as low-carbon energy sources, such claims should be critically assessed in policy planning.

6.3. Limitations of the neo-Gramscian approach

Even though the neo-Gramscian approach provides comparably good analytical tools for understanding power, strategy, and contestation (see section 2.), its historical background in Antonio Gramsci's theory of the capitalist society (from the early 20th century Italian perspective, to be precise) has left an imprint, which complicates using the approach for empirical research purposes. Using the neo-Gramscian approach requires the researcher to do heavy interpretation, particularly due to the open conceptual character of Gramscian theory (Haas, 2019: 68). However, power itself is a multifaceted concept and therefore, developing as simple mechanistic framework for it could be actually impossible. Nevertheless, theoretical reliability would improve by having more distinct descriptions for the less arguable concepts, such as the concept of field, which was challenging to determine in the Yamal LNG case that spans state borders and societal sectors. The neo-Gramscian approach should also develop further its framework on strategy, which in a basic form is quite simple – grasping only two types of broad strategies for the subaltern and accommodation for the core alliance to resist opposition. Overall, the approach should be understood as a holistic theoretical perspective, which can guide empirical analysis – as in this study. A closer level analysis method (such as social network analysis) could be used to reveal finer stakeholder relations and dynamics of power.

Actor heterogeneity in the core alliance of the Yamal LNG historical bloc raises up a question about the solidness of the hegemonic meaning of production. The actors of the core alliance represent quite different cultural backgrounds, nationalities, and organizational models. They also target their communication for different audiences with varying backgrounds. Considering this, the meaning of production or ideology in Gramscian terms, could in fact be quite incoherent. For some actors of the historical bloc it may be visible only in part. For example, despite that TOTAL S.A. holds ideological leadership in accommodating the opposition, a question remains that how well its communication

reaches the Russian civil society? However, the results point out that the subgroups agree with the core alliance in most discussed themes (see section 5.2.4. for reference). It is also worth to notice that leadership is essentially about mobilization of others – and the company has been considered to master technical and administrative knowhow that it mediates to other JSC Yamal LNG shareholders (see Stephenson & Agnew, 2016: 566).

Since hegemony builds up in actor relations and has no single leader, it is safe to argue that not even the core alliance elite stands sovereignly outside the influence of the hegemonic meaning of production that they manipulate in the Yamal LNG case, which is a standard subject of critique toward Gramscian theory (Levy & Scully, 2007: 978). The meaning of production, which projects as a universal trajectory of the society, may also shade the sensemaking of the elites. A related question that is relevant for understanding the energy policy of Russia, is that do Russian energy policy actors realistically account the risks of not developing Russian energy production toward the direction of energy transition – when such delegitimizing frames as the Neorealist producer and hegemonic discourses likewise the Yamal LNG case shape their policymaking.

6.4. Methodological considerations

Issues related to data collection are the most significant methodological limitations of this study. Future studies of this subject should seek to interview as many stakeholders of the Yamal LNG case as possible. Of course, this was also my objective, but it must be acknowledged that for this level of research – a master's thesis with limited time and resources, it was exceptionally challenging to reach the stakeholders. Relatively short timeframe, geographical distance, and language differences were elements that especially limited data collection. However, I was able to compensate deficiencies by including archival data and expert interviews. Overall, the amount of data, both by volume and the number of included stakeholders and experts, is larger than the average for a master's thesis.

Even larger set of data could possibly have given more detailed results, but even now the data showed signs of saturation, as a significant share of the codes reappeared multiple times between different pieces of data. The only constraint in the data was that the Neoliberal economist frame had to be assembled using more expert interviews and background literature, since a large share of this study's data that represents business actors consists of publicly available archival sources (e.g. reports and documents). These sources discuss energy security and energy transition only dispersedly and in

specific contexts, which requires more processing from the analyst – compared to research interviews, in which focused questions can be asked. In addition, archival data has usually gone through an editor's review before publication, which affects the communication by often including less frames. On one hand, this reduces the volume of "raw data" for the researcher, but on the other, the official views of the examined organization are displayed more clearly. In the Neoliberal economist frame, this has possibly resulted in less detailed frame description. This is opposite to the Neorealist importer frame, whose heavy focus on geopolitics could in part be the result of having extensive EU documents in the data.

As I used Skype video call and email to conduct some of the research interviews, I consider that these interview methods did not significantly affect the results nor methodological practice. Compared to face-to-face interview, video call is more prone to technical problems – but in my case, I experienced equally devastating technical problems in a face-to-face interview situation when I recorded audio. Acknowledging that the interview questions had quite specialist topics, the fact that bodily and facial expressions are easier to ignore online than face-to-face had very little impact on the results in general.

Using email for couple of interviews was my last preference. However, I consider that it was anyway better to interview than not, since the participants would have otherwise rejected my request. Luckily, only one of the email interviews bore noticeably less data than an average transcribed live interview. Because email exchange spanned relatively long periods of time and the answers did not look like carefully crafted pieces of communication – which could be a considerable difference to live interview, I consider that the email interviews fit well with other interview data. My conclusion from the one shorter email interview is that the interviewee was not very interested in the research topic.

The neo-Gramscian approach would have benefited from including media data, as media is considered as a part of ideological reproduction in the civil society (Levy & Newell, 2002: 87). Initially, such was gathered from English language sources, but only extremely marginal amount of it covered relevant topics for the analysis. Thus, it seemed unmeaningful to include and was rejected.[24] Having the possibility to collect and analyze data from Russian language media would probably have increased the study's validity, but however, it can be argued that the Russian mass-media largely reflects state interests (see Lipman, 2014: 180), which are already included.

[24] Appendix 3 provides a list of the collected media data sources.

Moreover, my inability to account Russian language data might be the study's largest weakness, resulting in a limited coverage of the research field. Future research should overcome this issue. However, an effort was made to contact two local indigenous political activists from YNAO, who are affiliated with reindeer herding. In their case, I translated the interview questions to Russian with help from a native speaker of Russian.

After a number of efforts to contact them, I had to conclude that reaching nomadic indigenous peoples for research interviews can be notably challenging when specialist knowledge of energy policy is a practical requisite for participation. The indigenous activists rejected taking part – stating that the interview questions were "*too complicated*" to answer. This is particularly shame, since YNAO's indigenous cultures possess valuable experience-based knowledge about ecological sustainability (see Forbes et al., 2009: 1; Kumpula et al., 2006: 28) that is an essential idea behind energy transition.

Some other interviewees could have felt the same, as they turned down certain themes, pleading to a lack of expertise. Developing the research questions required operationalization, which overall carries a risk for reliability, since the interviewees could have interpreted questions differently. Hence, the specialist subject and the unorthodox analytical framework, which connects energy security and energy transition, turned out as the main deficiency with the interview methodology, while it is a major contribution of the research design in general.

However, the semi-structured interview was particularly suitable data collection methodology for this study, since the research subject has been studied only very limitedly before and it bore multifaceted results like assumed (Hirsjärvi & Hurme, 2008: 35). The methodology also allowed interviewees some freedom for interpretation of the concepts with different understandings (see Bridge, 2010: 523; Sharples, 2013: 683), which brought up varying frames (Hirsjärvi & Hurme, 2008: 35). Starting the interview process from the expert interviews allowed me to develop structured and clearer understanding of the area under investigation (Bogner & Menz, 2009: 46–47) and identify stakeholders.

Critique given to the frame analysis method is often based on the subjectivity of interpretation regarding the identification of frames. According to Entman (1993: 51), "*nowhere is there a general statement of framing theory that shows exactly how frames become embedded within and make themselves manifest in a text.*" Also, Kuypers (2009: 198) warns that "*careless critics often find what they set out to find … It is very easy to 'discover' a frame and then impose it upon the remainder of*

the rhetorical artifact." To overcome these issues when identifying frames, I based my interpretations on research literature and this study's theoretical framework.

However, cultural differences might have posed a challenge in my analysis: Frames, that are deeply rooted in culture, can remain invisible for the researcher. Not being Russian, my comparably limited understanding of Russian culture may have caused misunderstandings. Nevertheless, only a share of the data, which overall includes number of different nationalities, represents Russian sources. Therefore, this same issue would have remained regardless of the researcher's nationality.

7. CONCLUSIONS

Research has largely neglected the essentially contrary relationship of two areas of energy policy: energy security and energy transition (see Bridge, 2015: 330; Sovacool, 2011: 7; Van de Graaf & Zelli, 2016: 53). This study pulled these two specific and theory-heavy literatures together. By adopting a case study approach, these were examined in an empirical setting. Particularly the role of the state, as a collective actor who also resists destabilizing change and partakes in creating socially constructed imaginaries of energy security, was assessed (Bridge, 2015: 330).

Political power plays significant role in how energy security and energy transition related interests become addressed in actual policymaking (Bridge, 2015: 330; Newell, 2018: 4). With multidimensional alignments of discursive, organizational and material elements, resisting regimes – often in the shape of a historical bloc, can obstruct low-carbon developments. This is another theme that has been commonly put aside in energy transition research (Geels, 2014: 23–25). With the neo-Gramscian approach, this study brought together multiple conceptual perspectives that are used to understand power, strategy, and contestation in social organizations. Thus, following Geels' (2014: 26) suggestion, the study "*enrich*[ed] *the regime concept with insights from political economy*" and made possible to study collective actors and different forms of power.

The research questions set this study to find out how the stakeholders of the Yamal LNG project consider it to connect with the energy security of Russia – to which climate change mitigation poses a potential threat. Previous literature has conceptualized Russia's energy security as evidently related to maintaining the stability of the country's national economy (Sharples, 2013: 683). Russia is dependent on the revenue generated by its hydrocarbon exports and its current political regime justifies this fact, consequently framing climate change mitigation as an external threat directed against Russia's sovereignty and cultural identity (Tynkkynen, 2019: 1). However, different actors with varying interests toward energy can conceptualize energy security differently and delegitimate other framings (see Proskuryakova, 2018: 203–204). Therefore, this study also looked at whose interests the Yamal LNG project actually secures as energy security, and how that concept of energy security becomes projected as a general national interest.

Results were derived by comparing four cognitive frames, drawn with frame analysis from both interview and archival data, to the strategic accommodation of frames by the case stakeholders in their discursive actions, accompanied with organizational and material alignments. The frames

consider the Yamal LNG project's relation to the themes of energy security and energy transition. The Neorealist producer frame, the most numerous with Russian state actors, considers that Russia's energy security is about ensuring the continuity of the hydrocarbon-intensive economic-cultural-political system of Russia by addressing risks related to resources, their development, market demand, and export. It frames climate change as a "natural phenomenon" that benefits Russia. Thus, it considers that energy transition is an external political threat subjected against the country. According to the frame, the Yamal LNG project then strategically serves Russia's energy security by diversifying export structure and adapting to conditions changed by climate change. The Neorealist importer frame represents the perspectives of net-energy importer states, mainly the EU and China. It considers that access to energy resources is imperative to guarantee the social and economic structures that provide well-being and development of societies, valuing control over energy supply and domestic energy production. The frame sees energy security and energy transition as two separate areas of interest, which, depending of the context, either conflict or align. The Yamal LNG project is considered to improve SOS – particularly for China, to whose wider geopolitical strategies it connects to. Popular among commercial actors, the Neorealist economist frame perceives that efficient markets ensure energy security. Since the frame considers natural gas as the lowest GHG emitting fossil fuel – "low-carbon" compared to today's primary energy mix, its increasing use contributes to climate change mitigation. The frame assumes that the Yamal LNG project has been established from purely commercial grounds, but unintendedly happens to benefit certain actors by coalescing with their strategies. The Environmentalist frame considers that conventional concepts of energy security drive energy policy into the contrary direction than what climate change mitigation would require. It sees climate change, other environmental problems, and social justice as the greatest threats related to energy, reflecting the interests of environmental NGOs, development organizations, the indigenous peoples of the Arctic region, and alternative energy technology business. Consequently, it advocates phasing out fossil energy and delegitimizes Russia's hydrocarbon production, which it claims to be threatened by climate policies, energy transition, and resource constraints. It believes that Yamal LNG faces the same risks, which the company and the Russian state have failed to account.

This study found out that the Yamal LNG project supports the strategic interests of the Russian government (see Ministry of Energy of the Russian Federation, 2010) and the companies of the JSC Yamal LNG consortium. These actors, accompanied with their subsidiaries, lobbies, and allied industrial organizations, comprise a core alliance – a dominant political group based on mutual interests. The Yamal LNG project untaps new resources and drives infrastructure development in the resource rich Arctic region of Russia, where production has been previously constrained by extreme

climatic conditions and geographic isolation. More importantly, by harnessing the NSR and new LNG technology, it allows Russia to expand its natural gas export markets to East Asia, when Russia's primary customers in the EU become increasingly interested in reducing fossil energy consumption and deploying renewable energy (European Commission, 2014: 7–12; Kratochvíl & Tichy, 2013: 392; Sharples, 2013: 688), estimated to lead to reduced total energy consumption (IEA, 2018: 41). Russia's oil and gas sector as well gains knowhow from the cooperation of TOTAL S.A. and Novatek. All this benefits Russia's energy security within such concept that is favorable to the government.

Moreover, Yamal LNG is involved in the strategies of adaptation to climate policies. With a major discursive strategy, which bases on accommodation of opposing groups' claims, the core alliance is able to influence the meanings given to energy transition. In the strategy, natural gas and LNG become projected as climate friendly fuels that are interlinked with the deployment of renewable energy. In accordance with Newell (2018: 18), the origin of energy transition is questioned, as ascension from energy poverty is presented as an equally driving reason for it. Thus, production and consumption of fossil gas conversely become intrinsic objectives of energy transition, as gas is reframed as "green", "clean", and "low-carbon" energy source, which supports energy security in developing countries where energy demand increases. This allows incumbent regimes to restructure their production by paying greater emphasis on natural gas than before. Borrowing from neo-Gramscian terminology (see Newell, 2018: 4–5), what is achieved I consider as *energy trasformismo*: A political attempt to manage energy transition in a way that ensures that the transformation of the energy order follows the means supportive to powerful fossil energy producer regimes, ensuring their energy security with continuing production.

The analysis based on the neo-Gramscian approach revealed that the core alliance possesses hegemonic power. The civil society stakeholders of the case, including both Russia-based and internationally-based NGOs and Arctic indigenous peoples' organizations, show signs of consent to the core alliance's interests. They reproduce the meanings given to Yamal LNG, energy security, and energy transition by the dominant groups. Despite their fundamentally conflicting interests (see Burke & Stephens, 2018: 90; Forbes et al., 2009: 7; Henry, 2010: 768–770; Schwalbe, 2017: 33–34), the Yamal LNG project has faced notably very little direct opposition. Therefore, it is logical to claim that to a certain degree these subgroups have absorbed the hegemony's rationale or "common sense" of understanding one's operational environment. In essence, the rationale bases on the above described concept of Russia's energy security that the Yamal LNG project serves by producing "clean energy" in the new Arctic "energy frontier". The establishment of the Yamal LNG project and the

operation of fossil fuel production may have seemed and continue to seem unavoidable to these groups, which curtails potential for opposing action. However, such hegemonic projection of "reality" is the result of careful alignments of such material, organizational, and discursive arrangements, as expanding infrastructures, promises of developing low-carbon technologies, juridical legitimacy, corporate social responsibility, and discursive strategies etc.

However, fragments in the hegemonic ideology provide some windows of opportunity for contesting actors (Levy & Newell, 2002: 87). From a historical perspective, it seems that the ideological leadership in the Yamal LNG case has come quite far to openly acknowledge the existence of climate change and energy transition. Some evidence, as well as theory (see Levy & Newell, 2002: 87), suggest that these ideas diffuse to even more conservative actors. However, it would require micro-level research to find out how ideas actually transfer between the actors of the core alliance. After all, the fact is that the ground is not fertile for energy transition advocacy in Russia: The state's control over the civil society is strong (see Henry, 2010: 758) and climate change denialism is common within the political leadership and media (N. Tynkkynen & Tynkkynen, 2019: 104). In the Yamal LNG case, advocacy groups rely on seeking support from transnational networks, which help them to establish alternative cores of power outside the country.

In broader context, the Yamal LNG case can function as an example of how specific framings of energy security may become obstacles to the adoption of energy transition. Incumbent actors, who seek to sustain their positions in power by defending the status quo, may actively seek to securitize energy in ways which allow them to stay essentially unchanged (see Bridge, 2015: 329; Geels, 2014: 27–28). Utilizing various forms of power, incumbent actors can accommodate environmentalist claims into hegemonic ideology, thus domesticating potentially destabilizing ideas to serve their interests. Often close relationships between energy companies and the state in fossil energy producer countries can lead to diffuse exchange of energy related interests, which is a setting prone to formulate historical blocs (Geels, 2014: 26–27), in which windows for opportunity regarding low-carbon development are extremely constrained. Against the prevailing approach, environmental politics should not forget to consider the role of the capitalist state, which provides support for incumbent industrial actors in a mutual relationship (see Lindblom, 2001: 42).

Ultimately, more research is required to understand better the relationship of energy security and energy transition, which is subject to political contestation. Conventional concepts of energy security, which in the end serve the purposes of a fossil capitalist society (Bridge, 2010: 523), should be

recontextualized to recognize the greatest fundament of human security: Sustaining life, which indisputably depends on the ecological condition of the biosphere.

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APPENDIXES

Appendix 1. List of data sources

Research interviews:

REF. CODE	ORGANIZATION TYPE *& AFFILIATION*	SECTOR	COUNTRY	DATE	DATA TYPE	SIZE (pp.)	LEVEL
A1	Energy sector think tank *Deputy Director on Energy Studies*	Academic	RUS	2019	Email	5	Expert
A2	Energy sector consulting firm *Deputy Director General*	Consulting	RUS	2019	Email	4	Expert
A3	Energy sector consulting firm *Consultant*	Consulting	RUS	2019	Oral (Skype)	9	Expert
A4	Environmental organization *Program Leader*	NGO	RUS	2019	Email	2	Stakeholder
A5	Environmental organization *Program Leader*	NGO	RUS	2019	Email	5	Stakeholder
A6	State-owned gas company *Senior Vice President*	Commercial	FIN	2019	Oral	9	Stakeholder
A7	State-owned gas company *CEO*	Commercial	FIN	2019	Oral	6	Expert
A8	Private ship engineering company *CEO*	Commercial	FIN	2019	Oral	5	Stakeholder
A9	Financial research institute *Senior Adviser*	Governance	FIN	2019	Oral	5	Expert
A10	University *Doctoral Candidate*	Academic	FIN	2019	Oral (Skype)	1	Expert
A11	University institute *Program Director*	Academic	UK	2018	Oral (Skype)	6	Expert

Archival data sources:

SOURCE	SECTOR	COUNTRY	DATE	DATA TYPE	TITLE
Mark Gyetvay (Novatek)	Commercial	RUS	2018	Video interview	*Mark Gyetvay of Novatek interviewed at Flame*
Mark Gyetvay (Novatek)	Commercial	RUS	2018	Video interview	*Novatek CEO sees no reason for vilifying Russian gas supply*
Christophe de Margerie (TOTAL S.A.)	Commercial	INT	2014	Video interview	*Financial Times: Total -- still upbeat on Russia*
Christophe de Margerie (TOTAL S.A.)	Commercial	INT	2014	Video interview	TOTAL CEO: Ukraine crisis has no direct impact on Yamal project.
Jin Qi (Silk Road Fund)	Finance	CN	2017	Interview transcript	The Belt and Road Initiative: Launching a new paradigm for international investment and financing cooperation. An interview with Jin Qi, chairman of the Silk Road Fund.
Dmitry Artyukhov (YNAO regional government)	Governance	RUS	2018	Conference statement	Personal communication in the Arctic Media World (2018) media congress. Salekhard, 10.12.2018.
Mikhael Krutikhin (RusEnergy)	Consulting	RUS	2018	Video interview	ESGA Q&A. Guest: Mikhail Krutikhin
Jin Qi (Silk Road Fund)	Commercial	CN	2015	Speech transcript	Keynote speech by chairman Jin Qi at the closing seremony of the CBN Financial Summit
Yamal LNG	Commercial	RUS	2013	Bulletin	Yamal LNG receives full LNG project sanction
Yamal LNG	Commercial	RUS	2014	Bulletin	Binding contract on LNG supply concluded with CNPC
Novatek	Commercial	RUS	2019	Report	PAO Novatek annual report 2018
TOTAL S.A.	Commercial	INT	2018	Strategy	Integrating climate into our strategy
TOTAL S.A.	Commercial	INT	2019	Report	Registration document 2018. Including the annual financial report.
CNPC	Commercial	CN	2017	Bulletin	First phase of Yamal LNG project becomes operational

Xu Wenrong (CNPC)	Commercial	CN	2016	Speech transcript	Natural gas, realistic choice to green & low carbon future
CNPC	Commercial	CN	2017	Report	2017 annual report
Ministry of Energy of the Russian Federation	Governance	RUS	2010	Strategy	Energy strategy of Russia for the period up to 2030
Vladimir Putin (President of Russia)	Governance	RUS	2017	Discussion transcript	The Arctic: Territory of dialogue international forum
Vladimir Putin (President of Russia)	Governance	RUS	2017	Discussion transcript	Excerpts from transcript of the plenary meeting of the St. Petersburg International Economic Forum
Vladimir Putin (President of Russia)	Governance	RUS	2017	Speech transcript	Russian Energy Week forum plenary session
Vladimir Putin (President of Russia)	Governance	RUS	2018	Discussion transcript	Meeting of the Security Council
Vladimir Putin (President of Russia)	Governance	RUS	2018	Discussion transcript	Russian Energy Week international forum
Vladimir Putin (President of Russia) & Alexander Novak (energy minister of the Russian Federation)	Governance	RUS	2019	Discussion transcript	Meeting with Energy Minister Alexander Novak
President of Russia	Governance	RUS	2016	Bulletin	Partnership for global peace and stability. Joint statement during the visit of President of the Russian Federation Vladimir Putin to the Republic of India
Aker Arctic Technology	Commercial	FIN	2014	Magazine	Arctic passion news #7 (1/2014)
Seyed Mohammed Hossein Adeli	IGO	INT	2017	Discussion transcript	Russian Energy Week forum plenary session
The Society of Natural Gas as a Marine Fuel	NGO	INT	2017	Report	Gas as a marine fuel. An introductory guide.
European Commission	Governance	EU	2014	Strategy	Communication from the Commission to the European Parliament and the Council. European energy security strategy.
European Commission	Governance	EU	2015	Strategy	Energy Union Package. Communication from the Commission to the European Parliament, the Council, The European Economic and Social Committee, the Committee of the Regions and the European Investment Bank. A Framework Strategy for a Resilient Energy Union with a Forward– Looking Climate Change Policy.
European Commission	Governance	EU	2016	Strategy	Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on an EU strategy for liquefied natural gas and gas storage
CAFF, Association of World Reindeer Herders & International Centre for Reindeer Husbandry	IGO	INT	2006	Report	World Reindeer Husbandry: CBMP EALÁT-Monitoring. Expert Network Monitoring Plan. Supporting publication to the CAFF Circumpolar Biodiversity Monitoring Program – Framework Document. By WRH and ICRH in cooperation with CAFF. CAFF CBMP Report No. 10, CAFF International Secretariat. Akureyri, Iceland.
Bellona	NGO	RUS	2019	Bulletin	Yamal LNG project built on a shifting foundation of climate change
Alexander Klimentyev & Alexey Knizhnikov (WWF Russia)	NGO	RUS	2017	Report	Prospects and opportunities for using LNG for bunkering in the Arctic regions of Russia
WWF UK	NGO	UK	2018	Bulletin	As renewables replace coal, planned gas plants destined to become expensive white elephants
Ria Voorhar & Lauri Myllyvirta (Greenpeace International)	NGO	INT	2013	Report	Point of no return. The massive climate threats we must avoid.
Greenpeace International, Global Wind Energy Council, & SolarPowerEurope	NGO	INT	2015	Report	Energy [r]evolution. A sustainable world energy outlook 2015.
Heinrich Böll Foundation	NGO	GER	2014	Report	Renewables: The only path to a secure, affordable and climate-friendly energy system by 2030.
Heinrich Böll Foundation & Friends of the Earth International	NGO	GER	2015	Report	Coal atlas. Facts and figures on a fossil fuel.
Heinrich Böll Foundation	NGO	GER	2017	Report	A change of course. How to build a fair future in a 1.5° world.
Aurélie Bros & Tatiana Mitrova	Academic	FR & RUS	2016	Academic article	Yamal LNG: An economic project under political pressure

Appendix 2. Research interview framework sheet

KYSYMYKSET KAIKILLE / *INTERVIEW QUESTIONS FOR EVERYBODY*

Johdatus / *Introduction*
1. Kertoisitko lyhyesti, miten päädyit nykyiseen asiantuntija-/työpositioosi? Miten energiapolitiikka on sinä aikana muuttunut? / *Can you tell me shortly how you ended up in your position? How has energy policy landscape developed during your career?*

Hanke ja toimijat / *The Yamal LNG project and its actors*
2. Mitkä syyt ja millaiset olosuhteet johtivat Yamal LNG:n kaasuhankkeiden ja Sabettan sataman perustamiseen? / *What were the factors and circumstances that lead to the establishment of the Yamal LNG project and the Sabetta seaport?*
3. Kuvaile Yamal LNG:n toimintaympäristöä. Millä tavoin hanke on koonnut toimijoita yhteen ja mikä heitä motivoi osallistumaan? / *Describe the operational environment of Yamal LNG. How has the project drawn actors together and what are their motives for taking part?*
4. Onko Yamal LNG -hanke edennyt alkuperäisten suunnitelmien mukaan vai onko niitä muutettu tai poikettu suunnitelmista? Mistä se johtuu? / *Has the Yamal LNG project stuck to its plans, or has there been any needs to diverge from the plans during the development of the project?*
5. Millainen rooli Venäjän hallinnolla on ollut Yamal LNG -hankkeessa? / *What has been the government's role in the project?*
6. Ketkä hankkeesta eniten hyötyvät ja miten? / *Who does the project especially benefit and how?*

Energiaturvallisuus / *Energy security*
7. Millä keinoin energiaturvallisuutta pyritään varmistamaan Venäjällä ja kaasua Venäjältä tuovissa maissa? Entä miten Yamal LNG ja Sabettan satama vaikuttaa energiaturvallisuuteen tässä kontekstissa? / *If you think about Yamal LNG and the seaport of Sabetta in the context of energy security of Russia and those countries that import its product, what kind of impacts Yamal LNG has to energy security?*
8. Vaikuttaako ulkomainen rahoitus ja ulkomaisten yritysten osallisuus Yamal LNG:ssä energiaturvallisuuteen Venäjällä tai ulkomailla? / *Do you think that foreign corporate presence and foreign investment in Yamal LNG has impacts to energy security in Russia or internationally?*
9. Miten Yamal LNG:n tuottamaan LNG:hen liittyviä turvallisuuskysymyksiä pyritään varmistamaan? / *How are security risks associated with Yamal LNG's product addressed?*
10. Miten tämänhetkisissä energiaturvallisuuden ylläpitämiseen pyrkivissä käytänteissä huomioidaan ilmastonmuutos? / *How is climate change considered in practices aimed for maintaining energy security?*

Ilmastonmuutos ja energiatransitio / *Climate change and energy transition*
11. Arvioi Venäjän energiaturvallisuutta vahvistamaan pyrkivän politiikan ja kansainvälisen ilmasto- ja ympäristöpolitiikan vaikutuksia toisiinsa. / *Can you examine the links or relations between Russian energy security and international climate and environmental policies and their impacts to each other?*
12. Kuvaile Yamal LNG:n suhdetta energiatransitioon ja ilmastopolitiikkaan. / *Could you describe Yamal LNG's relation to global energy transition and the politics of climate change?*
13. Miten näet Venäjän kaasumarkkinoiden kehittyvän, mikäli ilmastopolitiikassa edetään kohti Pariisin sopimuksen tavoitteita? Mikä LNG:n rooli tulee olemaan, kun energiajärjestelmä vähähiilistyy? / *If climate policies will progress toward the targets of the Paris Agreement, how are the markets of Russian gas going to develop? And what will be the role of LNG in decarbonizing energy system?*

Arvoketju ja -verkko / *Value chain and production network*

14. Kuvaile Yamal LNG:n kaasun arvoketjua ja reittiä elinkaarensa aikana. / *Can you describe the value chain and production network of Yamal LNG's gas?*

15. Millaista valtaa Venäjä omaa LNG-kaupan kautta? / *Could you describe the power that Yamal LNG possesses due to its market position?*

- Voidaanko tätä valtaa käyttää eduksi ympäristöpolitiikan määrittelyssä? / *Could this power be used for example in shaping environmental and climate policy?*

16. Kun ajattelet Yamal LNG:n arvoketjua aina hankkeen perustamisesta LNG:n kuluttajiin asti, mitkä tahot ovat pyrkineet vastustamaan hanketta tai sen tuotteita? Esimerkiksi onko hanketta vastustettu paikallisesti tai Venäjällä, tai vastustetaanko LNG:n käyttöä alueilla, joilla Yamal LNG:n kaasua kulutetaan? / *If you think about the whole value chain and production network of Yamal LNG – all the way since the establishment of the project until the end-use of its product, LNG – can you name actors that have resisted the project or its product?*

TEEMAKYSYMYKSET / *THEMATIC QUESTIONS*

Venäjä ja geopolitiikka / *Russia and geopolitics*

17. Miten Yamal LNG:n taloudellisiin, sosiaalisiin ja ympäristöllisiin vaikutuksiin on suhtauduttu lähialueella ja kansallisella tasolla? / *What kind of reception Yamal LNG's economic, social and environmental impacts have got on regional and national levels?*

18. Miten Venäjällä suhtaudutaan pyrkimyksiin vähentää fossiilisen energian kulutusta? / *How are the reactions in Russia towards the aims to decrease fossil fuel consumption?*

19. Mitä Venäjällä ajatellaan energiatransition kaltaisista muutoksista? / *What are Russian thoughts on energy transition, that probably will have major impacts in the society?*

20. Mitkä ovat kiinalaisten intressit Yamal LNG:ssä? / *What are the Chinese interests in Yamal LNG?*

Ilmastonmuutos ja energiatransitio / *Climate change and energy transition*

21. Mistä mahdollinen energiatransitio saa tai on saanut alkunsa? / *What is or was the starting point for the energy transition?*

22. Millä tavoin LNG kytkeytyy osaksi Kiinan ja itäisen Aasian energiatransitioon tähtäävää politiikkaa? / *How LNG links to the energy transition policies of China and other East Asian countries?*

23. Millä tavoin LNG kytkeytyy osaksi Euroopan ja länsimaiden energiatransitioon tähtäävää politiikkaa? / *How LNG links to the energy transition policies of Europe and the western countries?*

Energia ja turvallisuus / *Energy and security*

24. Miten Yamal LNG eroaa muista energiahankkeista? / *What is the difference between the Yamal LNG project and other energy projects?*

25. Mistä kiinnostus LNG:tä kohtaan juontuu globaalisti? / *What are the reasons behind global interests in LNG?*

Rahoitus, yritykset ja kaupalliset toimijat / *Finance, business and commercial actors*

26. Kuvaile LNG:n ja ilmastorahoituksen välistä yhteyttä. Missä määrin LNG:hen liittyvien hankkeiden rahoitusta on perusteltu ilmastotoimina? / *Describe the relation of LNG and climate finance. In what scale LNG related finance has been argued as climate change mitigation or climate friendly?*

27. Millä tavoin Yamal LNG:tä rahoittaneet tahot huomioivat ilmastonmuutokseen ja ilmastopolitiikkaan liittyviä riskejä? / *How the financers of Yamal LNG consider risks associated with climate change and climate policy?*

28. Miksi Novatek on edistynyt Yamal LNG -hankkeessa niin nopeasti verrattuna Venäjän valtionyhtiöiden energiahankkeisiin? / *Why Novatek has proceeded so fast if compared to energy projects managed by Russian state-owned companies?*

LOPUKSI / *CONCLUDING REMARKS*

29. Olisiko teillä vielä jotain lisättävää aiheeseen liittyen? / *Do you still have something additional related to the subject in your mind?*

Appendix 3. List of rejected media data sources

DATE	SOURCE	TITLE	DATE	SOURCE	TITLE
9.7.2012	2b1st Consulting	Novatek and Total Yamal LNG in good progress - EDF reported to join Novatek and Total in Yamal LNG	13.8.2018	Arctic Today	Novatek's Yamal LNG project doubles its production capacity ahead of schedule
17.7.2012	2b1st Consulting	Gazprom and Novatek signed Memorandum on Yamal	21.8.2018	The Barents Observer	Next door to Murmansk submarine base could come Arctic LNG terminal
24.7.2013	New York Times	Polar Thaw Opens Shortcut for Russian Natural Gas	22.8.2018	The Barents Observer	Big toot for new Russian Arctic railway
16.5.2014	OE Offshore Engineering	Total taps Technip for Yamal LNG	26.8.2018	The Barents Observer	A convoy is breaking its way through Russian east Arctic waters
8.10.2014	OE Offshore Engineering	Yamgaz selects AG&P for Yamal LNG project	31.8.2018	Reuters	Russia's Yamal LNG exports accelerate in time for winter, top Sakhalin
24.12.2014	LNG World News	Miller: Yamal of strategic importance for Russian gas industry	12.9.2018	The Barents Observer	Novatek CEO Mikhelson: «We will use Norwegian territory»
9.11.2015	LNG World Shipping	Aker Arctic puts design imprint on all Yamal LNG vessels	12.9.2018	The Barents Observer	Novatek teams up with Chinese parter for Arctic shipping
22.12.2015	The Barents Observer	Railway for Sabetta	14.9.2018	The Barents Observer	Here comes the Russian Arctic gas that will fuel Europe
5.1.2016	The Barents Observer	Petroleum scientists blame reindeer for mysterious tundra sinkholes	17.9.2018	The Barents Observer	Deputy Prime Minister supports foreign sailing restrictions on Northern Sea Route
20.9.2016	LNG World News	Report: Yamal LNG unaffected by low oil prices	18.9.2018	LNG World Shipping	Novatek and Rosatom to co-operate on LNG-powered Arctic icebreakers
9.3.2017	The Barents Observer	Gazprom hints it might share Yamal gas with Novatek	19.9.2018	The Barents Observer	Novatek: we team up with Tschudi Shipping over reloading of LNG in Norwegian waters
1.10.2017	National Geographic	They Migrate 800 Miles a Year. Now It's Getting Tougher.	4.10.2018	Arctic Today	Global energy bosses send Trump a message: world needs Russian gas
8.12.2017	Tass	Putin expects second stage of the Yamal LNG to be launched on 2018	11.10.2018	The Barents Observer	Novatek makes big discovery in Gulf of Ob
8.12.2017	Bloomberg	Putin Blesses Multibillion-Dollar Bet on Russia Competing in LNG	15.10.2018	Oilprice.com	This Giant Gas Field Is Rising From The Dead
8.12.2017	Russia Today	Putin opens Russia's $27bn Arctic LNG plant	16.10.2018	The Barents Observer	Another two ice-breaking LNG carriers are on their maiden voyage in Arctic waters
15.2.2017	Eye On The Arctic	Blog: As Yamal LNG launches in Arctic, both Russia and China try to claim success	19.10.2018	The Barents Observer	Floating storage for Arctic LNG
25.8.2017	High North News	Russian Petroleum Production Grows Despite Sanctions	22.10.2018	Oilprice.com	Here's What's Next For Russian LNG
31.8.2017	Oilprice.com	Russia's Comeback In The LNG Race	22.10.2018	The Barents Observer	Oil company ships out first 20 million tons through Arctic waters, says much more is in the pipeline
17.11.2017	The Barents Observer	Putin nationalizes Arctic petroleum shipments	26.10.2018	The Barents Observer	Saudi Aramco wants to buy 30% of Novatek's Arctic LNG-2
30.11.2017	Arctic Today	Novatek's Yamal LNG to be commissioned and begin production	29.10.2018	LNG World Shipping	Norway transhipments to ease Yamal LNG winter logistics challenges
12.12.2017	Tass	Press Review: Putin declares victory over IS and what's wrong with the 'RIC' in BRICS	14.11.2018	The Barents Observer	New LNG carrier finds way through Russian Arctic route to Chinese port
17.2.2018	Russia Today	Watch first commercial LNG tanker cross Russia's Arctic route without icebreaker escort (TIMELAPSE)	15.11.2018	Oilprice.com	Russia Says LNG Cargoes From Yamal Arrive In U.S.
19.2.2018	Oilprice.com	Is The Yamal LNG Project Overhyped?	19.11.2018	The Barents Observer	Georgy Brusilov is back in Arctic waters
22.3.2018	The Barents Observer	Aiming for boost in Arctic LNG, Novatek builds own shipping company	13.12.2018	Global Risk Insights	Russia is gradually developing its Arctic LNG strategy
29.6.2018	The Barents Observer	Arctic LNG carriers sail into deep ice with course for China	17.1.2019	The Barents Observer	Under the surface of Russia's Arctic super-region is a looming disaster
9.7.2018	Bloomberg	Russia Is Building $320 Million Icebreakers to Carve New Arctic Routes			
10.7.2018	Arctic Today	The first direct shipment of LNG from Russia's Arctic to Asia is nearing delivery			
16.7.2018	Oilprice.com	Yamal LNG Is Conquering China			
21.7.2018	The Barents Observer	"Yamal LNG among the most competitive projects globally"			
25.7.2018	The Barents Observer	Novatek looks towards Norway for reloading of LNG			
26.7.2018	The Barents Observer	Yamal LNG good business for European gas hubs			
5.11.2018	Arctic Today	Novatek's Yamal LNG will face logistical challenges during the coming winter months			
10.8.2018	The Barents Observer	A historic shipment from Sabetta points at global advance of Arctic LNG			

Appendix 4. Research process

I consider that the research process started by writing a research plan in October 2018. During the previous summer, extensive reading of research articles considering surrounding themes had preconditioned me to develop the research subject. Eventually, I developed the structure of this study by iterative writing over the research plan. November 2018 I mostly spent reading relevant research literature to later construct the theoretical framework (see section 2. for reference). Before the end of the year, I had also made two data collection trips and found nearly all of the invitees to the research interviews. However, the holiday season, consisting of both the Christmas season holidays in Finland and the New Year season holidays in Russia, greatly delayed conducting the interviews.

I worked almost solely collecting the interview data during January and February of 2019. Later in March, as I noticed that technical problems had caused me to lose two interviews, I conducted one more interview. In between this period, I collected the archival data, developed a deep understanding of the case, transcribed interview data, and coded data using the Atlas.ti software. In the early 2019, I also rejected the media data that I had collected, as it did not particularly relate to the themes of energy security or energy transition and was mostly reproduction of the public communication of the JSC Yamal LNG shareholders. In April, I had coded the 1,702 page data and started to analyze it.

I spent the summer 2019 mostly writing the study. In June, I finished the basic frame analysis, presented in section 5.1., which required grouping of codes, since I had over-coded the data (Yin, 2016). Unfortunately, during the late summer, I had to allocate much of my time to personal responsibilities, as I had greatly exceeded the time I reserved for conducting this study. I had estimated that it would take six months in total.

Applying the neo-Gramscian approach to the data, which included argument comparison, took much more effort than I expected. As a result, I finished section 5.2. in late 2019. During the fall, I encountered health issues, which postponed finishing the study to 2020.